RELATIONSHIP BETWEEN ORGANIZATIONAL CITIZENSHIP BEHAVIOR AND WORK STRESS AMONG TEACHING PROFESSIONALS OF KATHMANDU UNIVERSITY

Prabhat Koirala

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AN ABSTRACT

of the dissertation of *Prabhat Koirala* for the degree *Master of Philosophy in Educational Leadership* presented on 9 June 2024 entitled *Relationship Between Organizational Citizenship Behaviors and Work Stress Among Teaching Professionals of Kathmandu University.*

APPROVED BY

……..

Asst. Prof. Basu Prasad Subedi, PhD

Dissertation Supervisor

Organizations, including educational institutions, need employees and teachers to go beyond their formal job description. A teacher's job is categorized as a stressful job. In addition, indulgence in organizational citizenship behaviors (OCBs) may further increase the level of stress among teachers which may reduce overall performance and thus impact the performance of the institution. The purpose of this study is to examine the relationship between organizational citizenship behaviors (OCBs) and work stress (WS) among teaching professionals at Kathmandu University. The study delves into questions about the relationship between organizational citizenship behaviors (OCBs) and work stress (WS), as well as the role of demographic variables that influence OCB and WS. With a sample size of 214 teaching faculties in higher education who were surveyed with a structured questionnaire, the findings reveal a negative correlation between organizational citizenship behaviors (OCBs) and work stress (WS). That is the teaching professionals at Kathmandu University did not feel work stress (WS) due to the practice of organizational citizenship behavior (OCB). In the regression analysis, there was a significant influence of OCB dimension sportsmanship on the dependent variable WS, whereby, the WS declined as a result of increase in sportsmanship.

In addition, demographic factors such as gender and age had insignificant difference in the OCB and WS. For gender and age, a t-test and ANOVA tests were conducted respectively. And for other demographic variables in the study, ANOVA tests were conducted that revealed educational level had insignificant difference in the

OCB but had a significant difference in the WS of teaching professionals. The rank of teaching professionals had significant difference in both OCB and WS. There were significant differences in the OCB between Lecturers and Teaching Assistant. Similarly, there were significant differences in the WS between Professors and Teaching Assistant, Associate Professors and Teaching Assistant, Assistant Professors and Teaching Assistant, and finally Lecturers and Teaching Assistant.

The findings highlight the relevance of considering the rank of teaching professionals, educational backgrounds in understanding organizational citizenship behaviors (OCBs) and work stress (WS) and the role of sportsmanship in reducing work stress in the teaching profession.

The implications emphasize future researchers to explore OCB and WS on a national scale, considering variations in context and introducing mediating variables. Policy makers are encouraged to formulate robust policies promoting OCB and reducing WS, as well as addressing organizational hierarchy and departmental practices. Educational institutions should acknowledge OCB dimensions, identify stressors, and implement supportive strategies. Teaching professionals are urged to actively foster OCB, especially sportsmanship, to mitigate work-related stress, considering contextual differences and advocating for supportive policies and continuous professional development.

Further research can delve deeper into specific dimensions of organizational citizenship behavior (OCB), explore additional factors influencing organizational citizenship behaviors (OCBs) and work stress (WS), and examine these relationships in diverse cultural and contextual settings.

……. 9 June 2024

Prabhat Koirala

Degree Candidate

सोध सार

शिक्षा स्नातकोतर दर्शन उपाधीको लागि प्रभात कोइरालाले काठमाडौँ विश्वविद्यालयमा शिक्षण पेशामा आवद्ध कर्मचारीहरुमा संगठनात्मक नागरिक व्यवहार तथा कार्य तनाव बिचको सम्बन्ध भन्ने शिर्षकको शोधपत्र शिक्षा संकायमा बि. स. २०८१ साल जेष्ठ २० गते (९ जून २०२४) प्रस्तुत गरियो ।

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डा. बासु प्रसाद सुबेदी

शोधसार अनुमोदनकर्ता

शैक्षिक संस्थाहरु लगायतका विभिन्न संगठनहरुले आफ्ना कर्मचारी तथा शिक्षकहरुले उनीहरुको औपचारिक कार्यविवरण भन्दा थप कार्यभार बहन गर्नुपर्छ भन्ने अपेक्षा राख्दछन् । तनावपूर्ण पेशाको रूपमा वर्गीकरण गरिएको शिक्षण पेशामा संगठनात्मक नागरिक व्यवहार (OCB) थप हुँदा शिक्षकहरुमाझ कार्य तनाव (Work Stress) बढ्न गई कार्यसम्पादनमा ह्रास आउने तथा त्यसले संगठनकै समग्र कार्यसम्पादनमा असर पुर्याउन सक्ने हुन्छ। यस अध्ययनको उद्देश्य काठमाडौँ विश्वविद्यालयमा शिक्षण पेशामा आवद्ध कर्मचारीहरुमा संगठन नागरिक व्यवहार तथा तनाव व्यवस्थापन बिचको सम्बन्ध जाँच गर्नु रहेको छ। यस अध्ययनमा संगठनात्मक नागरिक व्यवहार तथा तनाव व्यवस्थापनको सम्बन्ध, तथा संगठनात्मक नागरिक व्यवहार तथा तनाव व्यवस्थापनलाइ प्रभाव पार्ने जनसांख्यिकीय कारकहरुको (Demographic Factors) बारे प्रश्नहरु सम्मेलित छन्। २१४ जना उच्च शिक्षामा आवद्ध शिक्षकहरुको नमूनालाइ संरचित प्रश्नावलीद्वारा सर्वेक्षण गर्दा संगठनात्मक नागरिक व्यवहार तथा तनाव व्यवस्थापन बिचको सहसम्बन्ध (Correlation) नकारात्मक रहेको पाइएको छ। काठमाडौँ विश्वविद्यालयमा शिक्षण पेशामा आवद्ध कर्मचारीहरुले संगठन नागरिक व्यवहारले गर्दा कार्य तनाव महसुस गर्दैनन्। Regression Analysis मा संगठनात्मक नागरिक व्यवहारको एक महत्वपूर्ण आयामको रूपमा रहेको 'आदर्पूर्ण तथा न्यायोचित व्यवहार' (Sportsmanship) ले कार्य तनाबमा महत्वपूर्ण असर गरेको पाइयो। आदर्पूर्ण तथा न्यायोचित व्यवहार ले कार्य तनाब कम भएको पाइयो ।

लिङ्ग तथा उमेर जस्ता जनसांख्यिकीय कारकहरुले संगठनात्मक नागरिक व्यवहार तथा कार्य तनावमा नगण्य असर पार्ने देखियो। लिङ्ग तथा उमेर का लागि क्रमशः T-Test तथा ANOVA-Test गरिएको थियो । अन्य जनसांख्यिकीय कारक हरुकालागी ANOVA-Test गरिएको थियो । उक्त ANOVA-Test बाट शिक्षाको स्तर संगठानात्मक नागरिक व्यवहारमा नगण्य भिन्नता तर कार्य तनावमा भने महत्वपूर्ण भिन्नता ल्याउने देखिएको थियो। शिक्षण पेशामा आवद्ध कर्मचारीहरुको श्रेणी तथा पदले भने संगठन नागरिक व्यवहार तथा कार्य तनावमा महत्वपूर्ण भिन्नता कायम गरेको पाइयो। यसैगरी प्रोफेसर तथा टिचिंग असिस्टेन्ट बिचमा, एसोसिएट प्रोफेसर तथा टिचिंग असिस्टेन्ट बिचमा, असिस्टेन्ट प्रोफेसर तथा टिचिंग असिस्टेन्ट बिचमा, तथा अन्त्यमा लेक्चरर तथा टिचिंग असिस्टेन्ट बिचमा कार्य तनावमा महत्वपूर्ण भिन्नता रहेको पाइयो ।

संगठनात्मक नागरिक व्यवहार तथा कार्य तनाव बुझ्न शिक्षण पेशाकर्मीहरूको पद तथा तहलाई ध्यान दिनपर्ने तथा आदरपुर्ण तथा न्यायोचित व्यवहारको कार्य तनाव कम गर्नमा रहेको महत्वलाई बुझ्नपर्ने कुरालाई नतिजाहरुले प्रकास पारेका छन्। राष्ट्रिय तथा अन्तराष्ट्रीय रूपमा संगठनात्मक नागरिक व्यवहार तथा कार्य तनाव को बारे Mediating Variable सम्मेलित गरेर थप अध्ययन गर्न यस अध्ययन ले भविष्यका अनुसन्धानकर्ताहरूलाई प्रेरित गर्दछ । नीति निर्माताहरुलाई OCB लाई प्रवर्द्धन गर्ने र WS लाई घटाउने, साथै संगठनात्मक पद सोपान तथा बिभागीय अभ्यासहरुलाई सम्बोधन गर्ने नीति निर्माण गर्न प्रोत्साहन गरिन्छ । शैक्षिक संस्थाले OCB का

आयामहरूलाइ तथा तनावका कारकहरु पहिचान गर्दै कार्यसम्पादन सहज बनाउने रणनीतिहरू लागू गर्नुपर्दछ । शिक्षण पेशामा आवद्द कर्मचारीहरुबाट आदरपूर्ण तथा न्यायोचित व्यवहारको बिकास गर्दै संगठनात्मक नागरिक व्यवहारको अवलम्बन गरी कार्य सम्बन्धित तनाबको निरुपण गर्न, सान्दर्भिक भिन्नताहरूलाई विचार गर्दै सहयोगी नीतिहरूको वकालत गर्न र निरन्तर व्यावसायिक विकास गर्न अपेक्षा गरिन्छ ।

थप अध्ययन अनुसन्धानले संगठनात्मक नागरिक व्यवहार तथा कार्य तनावकाको विशिष्ट आयामहरूमा गहिरो खोजी गर्दै बिभिद परिवेशमा यिनीहरु बिचको सम्बन्धको क्षेत्रमा थप खोज गर्न सक्नेछन् ।

..... २०८१ साल असार २०

प्रभात कोइराला

उपाधी उमेद्वार

This dissertation entitled *Relationship Between Organizational Citizenship Behaviors and Work Stress Among Teaching Professionals of Kathmandu University* presented by *Prabhat Koirala* on *9 June 2024.*

APPROVED BY

……. 9 June 2024
Asst. Prof. Basu Prasad Subedi, PhD
Dissertation Supervisor

……. 9 June 2024
Assoc. Prof. Jiban Khadka, PhD
External Examiner

……. 9 June 2024
Asst. Prof. Shesha Kanta Pangeni, PhD
Head of Department

……. 9 June 2024
Prof. Bal Chandra Luitel - PhD
Dean/ Chair of Research Committee

I understand that my dissertation will become a part of the permanent collection of the library of Kathmandu University. My signature below authorizes the release of my dissertation to any reader upon request for scholarly purposes.

……. 9 June 2024
Prabhat Koirala
Degree Candidate

DECLARATION

I hereby declare that this dissertation is my original work, and it has not been submitted for candidature for any other degree at any other university.

……. 9 June 2024

Prabhat Koirala

Degree Candidate

DEDICATION

This dissertation is dedicated to my parents, my wife and my kid.

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I am writing this letter to express my gratitude for the enormous support and guidance received during my research study on organizational citizenship behaviors (OCBs) and work stress (WS). My sincere gratitude to Dr. Basu Prasad Subedi, Dr. Shesha Kanta Pangeni, Dr. Dhanapati Subedi, Mr. Navraj Bhusal, Dr. Chandan Acharya and Ms. Safalta Bastola. Your assistance and encouragement have been instrumental in successfully complete this project.

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Prabhat Koirala

Degree Candidate

TABLE OF CONTENTS

ABBREVIATIONS

KUSOED:	Kathmandu University School of Education
KU:	Kathmandu University
OCBs:	Organizational Citizenship Behaviors
WS:	Work Stress
ANOVA:	Analysis of Variance
COR:	Conservation of Resources

LIST OF TABLES

CHAPTER I
INTRODUCTION

The contents of this section introduce the background of the study, discussing organizational citizenship behaviors (OCBs) and their definition, factors influencing employee behavior, and the importance of positive attitudes from employers. The literature review discusses both the merits and demerits of organizational citizenship behaviors (OCBs). This chapter further highlights the relationship between workload, burnout, and organizational citizenship behaviors (OCBs) among teachers. In addition, the problem statement highlights the reverse impact of organizational citizenship behaviors (OCBs) on work stress (WS) among teaching professionals. Furthermore, this section states the purpose, examining the relationship between organizational citizenship behaviors (OCBs) and work stress (WS) among teachers, presents research questions, formulates research hypotheses, explains the rationale of the study, emphasizes the need to balance organizational citizenship behaviors (OCBs) and work stress (WS) for organizational growth. Finally, the chapter mentions the delimitations of the study, specifying the scope and focus on organizational citizenship behavior (OCB) dimensions, work stress (WS) components, and demographics.

Exploring the Impact of Organizational Citizenship Behaviors and Work Stress Among Teaching Professionals

There is a symbiotic relationship between organizations and individuals, whereby individuals and organization goals synchronize. Individual employees are guided in their work by the job description, and they are appraised and promoted based on their performance. But this relationship extends further where employees perform beyond their formal job description and organizations reward such performers, ensuring a win-win for both. The final concern in this regard is the possibility of stress among employees who keep performing beyond the formal job description. In a similar context of employees performing beyond their formal job description, Organ (1988) highlights a very peculiar employees' behavior whereby employees perform outside their formal job description and claims that such a behavior is appreciated or desired by organizations. Later, Organ (1997) added a few more elements to the definition, whereby organizational citizenship behaviors (OCBs)

refer to “individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization” (p.86). Furthermore, Robbins and Judge (2021) have mentioned that a specific term given to the behavior of employees who act outside the formally prescribed job description is known as organization citizenship behavior (OCB) (p.44).

It is also evident that the desired employee behavior is contingent to a boundless extent on various factors that are generally taken care of by the organization’s human resource function. These factors include staffing and placement, training, employee development, salary and benefits, employee relations, and so on (Dessler, 2020). Organizational citizenship behaviors (OCBs) are based on the social exchange theory that emphasizes the organizations’ personal care of the employees who consistently perform to improve the organization. To ensure such behavior out of employees, employers should also ensure that the employees are delivered with financial and socio-psychological appreciation. In addition, the display of positive attitudes and behavior from the employers is crucial to deriving similar behavior from the employees’ which aids in developing organizational citizenship behavior (Mousa et al., 2020).

In my understanding, organizations are goal-directed, requiring employees to display a minimum explicit behavior that ensures goal achievement. But is it possible for all the employees working in different organizations to reflect organizational citizenship behaviors (OCBs)? I, being a teacher in higher education, conduct a lot of voluntary tasks which are not mentioned in my formal job description. In addition, according to McCarthy (2019), the job of teaching, which is already categorized among stressful jobs with high turnover. So, my concern is - whether teachers will be able to display organizational citizenship behaviors (OCBs) given the burden of work and tasks that are not mentioned in the formal job description. Is extra work taxing the teachers’ physical, mental, and social well-being? Do teachers take their office work home and work late at night? Does the extra work of teachers hinder their family life?

These are some of the questions that boggle me being a teacher and thus propel me to understand if voluntary work behavior or organizational citizenship behaviors (OCBs) induce work stress (WS) among teaching professionals.

While being good to others by helping (e.g., boss, colleague, supervisor) in the workplace, one might be overburdened and may even affect this helping employee

(Organ, 1988). Similarly, Organ and Ryan (1995) also have emphasized the negative side of OCBs among employees. They highlighted the possibilities of work overload with added responsibilities among employees who display organizational citizenship behaviors (OCBs). According to Uzun (2018), teaching is a profession that demands voluntary services from students and institutions. Such voluntary acts are reflected in the form of teachers helping teachers and teachers allocating extra hours with students for their learning and support. Evidence also reflects significant correlations between teachers' workload and burnout.

On the one hand, the display of organizational citizenship behaviors (OCBs) is beneficial to the organization, but it may also lead to work stress (Bogler & Somech, 2004; Oplatka, 2006; Podsakoff, 2000; Trougakos et al., 2015). From the teaching perspective, educational institutions should not be blindfolded on the association between teachers' workload and burnout (Uzun, 2018).

According to the World Health Organization (2020), health is the total of an encouraging condition of total physiological, psychological, and social well-being, whereas a healthy work environment relates to the presence and absence of conditions that promote and deteriorate health, respectively. Similarly, a healthy job is likely to be one where the workload on employees is not overburdening in terms of their capabilities, means, authority, and support. However, the contemporary workplace is competitive and work pressure is inevitable. Employees may feel stressed out if they experience that their work is overly demanding against their knowledge, and abilities and thus fail to handle or manage such situations.

These issues propel this study to inquire and discuss the relationship between implicit beyond-the-job behaviors, popularly known as organizational citizenship behaviors (OCBs), and work stress (WS) among teaching professionals. This study going forward will delve into the existing literature on organizational citizenship behaviors (OCBs) and work stress (WS) in the context of teaching professionals. Such an involvement in the existing literature will be the foundation of this paper.

Analysis of Organizational Citizenship Behaviors and Work Stress Among Teaching Professionals

Many research studies have emphasized the negative impact of work stress (WS) on organizational citizenship behaviors (OCBs) (De Clercq & Belausteguigoitia, 2020; Eatough et al., 2011; Pooja et al., 2016). With an exception to the context of teaching professionals at different educational institutions and

universities, the phenomenon is quite the reverse of the obvious, that is, there are instances where a higher involvement of teaching professionals in organizational citizenship behaviors (OCBs) has caused work stress (WS) and, in few instances, burnout. On one hand, the display, or organizational citizenship behaviors (OCBs) is beneficial to the organization, it may also lead to work stress (Bogler & Somech, 2004; Oplatka, 2006; Podsakoff, 2000; Trougakos et al., 2015). From the teaching perspective, educational institutions should not be blindfolded on the association between teachers work load and burnout (Uzun, 2018). There are also chances that organizational citizenship behaviors (OCBs) may lead to increased workload that contributes to work stress (WS) among teaching professionals.

Stress among employees may lead to an increase in absenteeism, employee turnover, workplace conflict, and a decline in productivity (Michie, 2002). Elevated levels of organizational citizenship behavior are linked to increased employee strain, surpassing the influence of role overload, role ambiguity, and role conflict (Somech & Drach-Zahavy, 2013). In addition, teachers' organizational citizenship behaviors (OCBs) have contributed to added work, lack of clarity of role, and the ambiguities that arise in the understanding of the job responsibilities, and these factors collectively contribute to strain among teachers (Somech, 2016). Finally, teaching is considered one of the most stressful jobs, with a significant burnout rate and high turnover (McCarthy, 2019). Thus, accessing OCBs, work stress (WS), and the influence of OCBs on work stress (WS) will help the educational institution to determine human resource policies that promotes sustainable organizational citizenship behaviors (OCBs) levels, and ensuring a decline in work stress (WS) levels.

It seems that this is a challenge for organizations to sustain organizational citizenship behavior (OCB) over time. According to Juliana et al. (2022), sustainable organizational citizenship behavior signifies a type of employee behavior that contributes to the work environment and can be maintained over time. Organizational citizenship behavior (OCB) is considered sustainable because it is a long-term pattern of behavior that contributes to an organization's environmental, economic, and social sustainability goals over time. A similar study by Hunter and Wu (2016) found that the preferred break activities were positively associated with post-break resources, job satisfaction, and OCB. This suggests that taking the type of break activities into account in break design is important for employee's positive organizational citizenship behavior. However, according to Scott et al. (2016), the connection

between OCB and strain is intricate, warranting additional research to comprehend its subtleties comprehensively.

Statements of the Problem

Previous studies are based on the introductory idea of organizational citizenship behavior that is deliberate and there is no expectation for reward (LePine et al., 2002; Organ, 1988; Smith et al., 1983), thus individuals performing or displaying organizational citizenship behaviors do not feel work stress or there exist a negative correlation between organization citizenship behavior and work stress (De Clercq & Belausteguigoitia, 2020; Eatough et al., 2011; Pooja et al., 2016). It seems that many of the research studies were directed or focused in the same original direction until recent research studies by Bolino and Turnley (2005), Bergeron (2007), Somech and Drach-Zahavy (2013), and Somech (2016) have made claims and presented empirical evidence that elevated levels of organizational citizenship behavior may cause strain and stress among employees. Much of the research studies conducted by Somech are among teachers.

In addition, research conducted on 290 faculty members from various universities in health sciences colleges in Kathmandu valley *(including KU)*, Nepal, found that increased work stress levels significantly negatively impact job satisfaction (Pandit et al., 2017). In this study, there lacks a description about the situation of work stress among teachers at different universities.

Similarly, a research conducted at Tribhuvan University in Kathmandu, involving 150 predominantly male academic teaching faculty and utilizing a quantitative method with a Likert-5 point scale questionnaire, found that while teachers accepted their workload and working conditions, factors such as peer relationships, recognition, role and responsibility, and stress significantly impacted their occupation, revealing statistically significant positive correlations between stress and these variables (Adhikari et al., 2023). To be more specific, the human resource department at Kathmandu had conducted stress management program to its staffs (Kathmandu University, 2022). So, if there is the existence of stress among teachers in Nepal's largest university, it becomes pervasive to conduct similar study at Kathmandu University.

Thus, my study aligns much more with the recent inquiries where elevated levels of organizational citizenship behavior may cause work stress among teaching professionals. In addition, being a teacher myself, I can and easily relate to

organizational citizenship behavior. I voluntarily offer help when it comes to helping a new work colleague, existing work colleagues, and supervisors. Most of the help and support I offer to a new work colleague and existing colleagues are voluntary; however, if I am honest with myself, I should accept that the help and support I offer to my supervisor is with an expectation for reward or at least appreciation for if the help and support demand my utmost attention and time. In the *conservation of resources* theory by Hobfoll (1989), an individual feels stress if they fear the loss of their resource without any return or reward. In this case, on one hand, I may feel stress if there is no reward or appreciation, and on the other, one of my precious resources – time is wasted when I help my supervisor or colleague. Finally, list down the research gaps that led to statements of the problem includes the existence of less empirical evidence about OCB causing strain or work stress among employees especially, among teaching professionals and more specifically teaching professionals at Kathmandu University. In addition, there is a limited focus on the negative impact of organizational citizenship behavior. Furthermore, there is a lacking in gender-specific analysis of OCB and WS in Nepalese society. Thus, there is a valid reason why this study is taken into consideration.

Purpose of the Study

The purpose is to assess the relationship between OCBs and (WS) among teaching professionals. In addition, this study finds the significant organizational citizenship behavior (OCB) dimensions and levels of work stress (WS) reflected among teaching professionals.

Research Inquiries

Two research questions have been prepared on the basis of the purpose statement.

1. What is the status of organizational citizenship behaviors (OCBs) and work stress (WS) among teaching professionals?
2. What relationship exists between OCBs and work stress (WS) among teaching professionals?

Hypothesis Based on the Research Inquiries

The following hypotheses are drawn to answer the above research questions. The hypothesis statements are stated in an alternate form. The first four hypotheses attempt to answer research question 1, and the last two attempt to answer research question 2.

H 1: A statistically significant variation exists between male and female teaching professionals in the OCBs and work stress (WS).

H 2: A statistically significant variation exists in the OCBs and work stress (WS) among teaching professionals at different ranks.

H 3: A statistically significant variation exists in the OCBs and work stress (WS) among teaching professionals in different age groups.

H 4: A statistically significant variation exists in the OCBs and work stress (WS) among teaching professionals at different educational levels.

H 5: A statistically positive significant relationship exists between OCBs and work stress (WS) among teaching professionals.

H 6: A statistically significant effect of OCB exists on work stress (WS) among teaching professionals.

Justification of the Study and Research Significance

Teaching is a challenging profession often involving voluntary and extra-role behaviors, reflecting the essence of Organizational Citizenship Behaviors (OCBs). The chosen title for this study, "The Relationship between Organizational Citizenship Behavior and Work Stress Among Teaching Professionals of Kathmandu University," is highly justified in the current educational landscape. The title is timely and researchable due to several reasons. One of the reasons is that COVID-19 has significantly affected teaching and learning. Educators have had to adjust rapidly to remote and blended teaching methods, often with increased workloads and stress (Oducado et al., 2021; Santamaría et al., 2021). The pandemic has exacerbated the challenges educators face, making it crucial to examine how OCBs and work stress intersect in this new context. The data collection was conducted during the COVID-19 lockdown to record the changing dynamics of OCB and work stress. Furthermore, the teaching profession already being categorized as a stressful job (McCarthy, 2019), and the psychological health of teaching professionals cannot be compromised. Thus, this study makes sense to teaching and learning professionals and institutions. Finally, teaching is a profession that plays a crucial role in shaping future generations. It is not only academically challenging but also emotionally and socially demanding. Recently, there has been a growing concern about the well-being of teaching professionals, with studies pointing to extraordinary levels of work stress, burnout, and turnover in this field. Given the importance of education, understanding the relationship between OCBs and work stress among teaching professionals is essential.

The present literature mainly centers on the impact of work stress on OCBs, but this study flips the perspective to investigate the reverse impact. It recognizes that, in the setting of teaching professionals, the phenomenon is often the reverse of what is traditionally observed. Teachers who engage in OCBs may inadvertently experience work stress, which can have negative consequences for educators and the education system. Thus, the title is justified by the need to delve deeper into the dynamics of OCBs and work stress, specifically among teaching professionals. It addresses the fact that while OCBs can benefit an organization, they may not always yield positive outcomes, especially in the high-stress education environment. The research aims to shed light on these complex relationships and their implications.

This is an attempt to close a significant research gap. The available literature predominantly portrays OCBs as a positive and stress-reducing behavior mostly in non-academic sectors and non-academic institutions or organizations. However, recent studies have challenged this conventional wisdom (Bergeron, 2007; Bolino & Turnley, 2005; Somech, 2016; Somech & Drach-Zahavy, 2013). Especially, research studies conducted by Somech and Somech & Drach -Zahavy in educational contexts have pointed out that teaching professionals engaged in extensive OCB activities also experience work stress. These studies suggest that elevated levels of OCBs can lead to work stress, particularly among teaching professionals. The necessity for more research on this topic is shown by this attempt at analysis. There's no denying the vacuum in the current body of literature. With the help of empirical data and insights into the intricate relationships between OCBs and work stress in the educational setting, this research will try to close this knowledge gap. This gap points me toward this study's main goal, which is to investigate the connection between OCBs and work stress among educators. Additionally, the study aims to identify the OCB dimensions that either motivate or demotivate educators in the workplace. This purpose is driven by the pressing need to understand how OCBs affect teaching professionals' well-being and job performance. These research questions are dependable because they directly align with the purpose of the research. They delve into the specific dynamics of OCBs and work stress among teaching professionals, seeking to provide a comprehensive understanding of these relationships.

If this study is not carried forward, the implications for teaching professionals and educational institutions could be significant. Without a deeper understanding of how OCBs affect work stress, there is a risk that educators will continue to experience

burnout and turnover at high rates. Educational institutions may struggle to retain dedicated teaching professionals, and students could suffer from the consequences of stressed and disengaged educators. Such a study may require educational institutions to assess the relationship between OCBs and work stress (WS), inform policies and practices that promote sustainable OCBs and reduce work stress among teaching professionals, and juggle as well as balance OCB and work stress (WS) to continue experiencing organizational growth.

Finally, this study presents compelling propositions for diverse stakeholders. To policymakers, including the University Grant Commission and the Ministry of Science and Education. Similarly, educational institutions can be encouraged to cultivate OCB behaviors, aligning strategies with institution-specific dimensions and stressors, while research funding bodies can prioritize areas exploring job stress, teacher performance, and workload mediation. Teaching professionals can be urged to foster a culture of OCB, tailoring approaches to contextual differences, advocating for policy development, and engaging in continuous professional development. For future researchers, the study proposes nationwide investigations into OCB and WS dynamics, considering contextual variations between university and private institutions, introducing work overload as a mediating factor, and exploring additional dimensions such as OCB and job satisfaction, teacher retention, and organizational performance. Furthermore, examining how COVID-19 affects stressors and perceived work stress in the education sector could contribute to our knowledge of these important processes.

Delimitation of the Study

This study is demarcated to display different dimensions of organizational citizenship behaviors (OCBs) viz. *altruism, courtesy, sportsmanship, conscientiousness, and civic virtue.* Similarly, work stress (WS) components -viz. *time stress* and *anxiety* are considered in this study. In addition, this study covers the relational aspect of organizational citizenship behaviors (OCBs) and work stress (WS) among teaching professionals, the impact of organizational citizenship behavior (OCB) dimensions on work stress (WS) in higher education, and the play of demographics in determining the level of organizational citizenship behaviors (OCBs) and work stress (WS) among teaching professionals.

CHAPTER II
LITERATURE REVIEW

This chapter delves into the intriguing concept of OCB and Work Stress (WS) and explores their relationship, specifically in the context of Nepalese teachers. It takes a journey through the historical development of OCB and WS, uncovering their dimensions and components. Throughout the literature review, light is shed on the various factors that influence OCB, such as personality traits, organizational systems, job characteristics, and leadership styles. It becomes evident that organizations should prioritize enhancing and leveraging their employees' strengths to foster OCB, ultimately boosting organizational performance. Numerous studies in Nepal have explored the link between Organizational Citizenship Behavior (OCB) and factors such as teachers' location, organizational commitment, human resource practices, employee engagement, and service quality performance. Additionally, this review explores the intricate connection between OCB and WS. While OCB is generally beneficial for organizations, it's important to note that engaging in extra-role behaviors may adversely affect employees, leading to heightened stress levels. Among teachers, stress can manifest as negative physical and mental health effects, increased turnover, absenteeism, and reduced productivity. Research indicates that OCB can contribute to an overload of work, confusion with roles to be performed, conflict of multiple roles, and overall strain for teachers. Further exploration is warranted to precisely understand the link between OCB and WS in the explicit context of Nepalese teachers, considering their unique pressures and coping mechanisms. Thus, a thorough understanding of the concept and dimensions of OCBs is required to begin.

Understanding of Organizational Citizenship Behaviors: A Conceptual Exploration

The idea of OCBs can be traced back to the concept of voluntary cooperation, whereby the book highlights the importance of individuals in an organization who voluntarily support organizational activities and matters that help the organization achieve its goals (Bernard, 1938). Similarly, Katz (1964) makes a reference to OCB, asserting that besides joining and remaining with the organization and meeting performance criteria, employees should engage in spontaneous actions that go

beyond their prescribed roles. Building upon this notion, Katz and Kahn (1978) further elaborate on spontaneous behaviors that inherently promote cooperation and are indispensable for the effective functioning of organizations. Later, Bateman and Organ (1983) conducted experiments to examine this concept and discovered that job satisfaction plays an important role in predicting citizenship behavior. It's worth noting, though, that the term OCB was first coined by Smith et al. (1983), who was intrigued by why job satisfaction holds importance for organizations, even though it has only a weak correlation with job performance.

Positive behaviors are known as OCBs, and workers who exhibit them are referred to as good citizens (Organ, 1988). OCB is defined as behavior beyond role requirements and is organizationally operative, positioned as the organizational equivalent of citizen obligations, encompassing three categories: political engagement, obedience, and loyalty (Graham, 1991). The term OCB refers to individual behaviors that are voluntary, not clearly or explicitly recognized by the formal incentive structure, and that, when combined, helps the organization run smoothly (Feather & Rauter, 2004; Organ, 1997).

Similarly, OCBs are voluntary, outside-of-role behaviors that contribute to the company's smooth operation but are not recognized or awarded formally (Pond et al., 1997). This definition received reinforcement after Podsakoff et al. (2000) backed the idea with empirical evidence and validated that OCBs lead to the successful functioning of an organization. In the timeline ahead, Zhang et al. (2011) define OCB as deliberate employee actions that are not obviously acknowledged by the official reward system of an organization but are considered to promote the effective running of the organization. Furthermore, Koopman et al. (2015) define OCB as optional individual activities or behaviors that are advantageous to the organization and its constituents but not specifically mentioned in the work requirements or job descriptions of the personnel. In a more recent definition by Organ (2018), OCBs are the informal behavior of cooperation and contribution from the employees in an organization; such behaviors are reflected in job satisfaction and perceived fairness.

In summary, OCBs are positive actions beyond formal job requirements, making employees good citizens in the workplace. These discretionary behaviors, categorized as obedience, loyalty, and political participation, enhance organizational effectiveness without explicit rewards. OCBs are voluntary actions that promote organizational effectiveness and are advantageous, non-mandatory behaviors. They

are informal cooperative actions driven by job satisfaction and perceived fairness. Empirical proof chains the positive impact of OCBs on organizational functioning. With these definitions and explanations about OCB, it can be understood that educational institutions are not an exception, and teaching professionals, being an integral part of educational institutions and universities, display OCBs. Thus, after understanding the concept of OCB, it is pertinent to know the dimensions of OCB or what different names represent OCB. Understanding the dimensions of OCB will enable the explicit identification and naming of such behaviors in an organizational setting.

Dimensions of OCB

Initially, Smith et al. (1983) mentioned the components viz. altruism and general compliance. Altruism refers to the voluntary offer of help to a work colleague or supervisor when in need, and general compliance relates to the impersonal form of conscientiousness. Works that are beneficial to the organization rather than an individual. In addition, it refers to employees as "good soldiers" or "good citizens" who do things that are "right and proper" for the organization. In addition, Organ (1988) introduces *conscientiousness*, *sportsmanship,* and *civic virtue* as the OCB dimensions. Likewise, Organ (1997) discusses two components of OCB mirrored within an organizational setting. The first is OCB-I, where I denote the behavior that is reflected by an employee towards other individuals (work colleagues, supervisors, and customers), viz. *altruism* (helping behavior without any expectation) and *courtesy* (behavior that is intended to avoid problems for others). The second is OCB-O; here, O denotes the behavior that is reflected by an employee towards the organization. Such OCB-O traits are reflected by employees when they show active participation and presence in important proceedings or meetings, regularity, proper use of resources, and productivity during work hours. Moreover, in an extensive review of the theoretical and empirical literature on OCB, Podsakoff (2000) has identified seven different forms of OCB – *the behavior of helping others in the workplace, sportsmanship, loyalty shown for the organization, assuring compliance in the organization, taking initiative individually, civic virtue, and development of the self.* These dimensions must be discussed/elaborated further.

Helping behavior encompasses voluntary assistance and support to new joiners, supervisors, and colleagues with an additional workload. It also involves demonstrating helpful gestures to colleagues that contribute to their work or help

prevent mistakes and offering motivation and praise for their efforts and achievements.

On the other hand, sportsmanship represents a behavior that reflects tolerance towards difficulties and inconveniences encountered during work.

Organizational loyalty involves strengthening the organization's reputation externally, aligning individual, group, and departmental interests with the overall organizational objectives, and supporting the organization even during challenging times.

Organizational compliance includes self-driven factors such as punctuality, not wasting organizational resources (e.g., lunch breaks or coffee breaks), having a deep understanding of the organizational structure, hierarchy, policies, rules, and regulations, and adhering to them without exceptions.

Individual initiative refers to going beyond the minimal requirements of a job or task, sharing ideas to conserve organizational resources, and taking initiatives to enhance group performance.

Civic virtue reflects a higher level of engagement in organizational matters, actively participating in meetings, staying updated on ongoing organizational activities, and timely suggesting or recommending actions that benefit the organization's interests.

Self-development refers to employees' efforts to enhance their skills, knowledge, and abilities, which significantly contribute to the organization. Examples of self-development may include enrolling in training programs or pursuing higher academic degrees.

Furthermore, a critical review and meta-analysis accompanied by LePine et al. (2002) highlighted five OCB dimensions viz. altruism (cooperation), conscientiousness (who adheres to organizational rules), sportsmanship (performs without complaining), courtesy (respect to work colleagues), and civic virtue (behavior that enhances organizations wellbeing). The first dimension of altruism, which is the voluntary display of help and cooperation with others without expecting any reward in return. The second the dimension of conscientiousness refers to behaviors like following organizational rules, being punctual at work, and being responsible. The third-dimension *sportsmanship* refers to the behavior where an employee performs their work without complaining about pity things. Here employees also display to be a good team player and support others. The fourth

dimension relates to courtesy, whereby employees continuously show respect and consideration towards other work colleagues. And finally, the fifth dimension civic, virtue refers to any behavior of employees that positively promotes the organization's well-being. This dimension also includes attending meetings, representing as an organization ambassador, and staying informed about the industry environment.

Finally, the selection of Altruism, Conscientiousness, Sportsmanship, Courtesy, and Civic Virtue as the dimensions of Organizational Citizenship Behaviors (OCBs) in this study is grounded in a comprehensive examination of seminal literature and theoretical frameworks. Initially proposed by Smith et al. (1983), Altruism and General Compliance were identified as key components. Altruism, involving voluntary assistance to colleagues or supervisors, aligns with the subsequent conceptualization of helping behavior, emphasizing support and aid without expecting reciprocation. General Compliance reflects impersonal conscientiousness, emphasizing actions beneficial to the organization rather than individuals, resembling later dimensions such as Organizational Compliance. Similarly, Organ (1988, 1997) influential contributions introduced Conscientiousness, Sportsmanship, and Civic Virtue as vital OCB dimensions. The dimensions resonate with (LePine et al., 2002) critical review, encompassing Altruism, Conscientiousness, Sportsmanship, Courtesy, and Civic Virtue. These dimensions collectively cover a spectrum of positive behaviors: Altruism mirrors voluntary assistance, Conscientiousness denotes responsible and rule-abiding conduct, Sportsmanship reflects tolerance and team support, Courtesy entails respectful interactions, and Civic Virtue encompasses active engagement and representation of organizational interests. The dimensions are interrelated, avoiding ambiguities in interpretation. The study's meticulous alignment with these dimensions ensures a holistic exploration of OCBs, offering a nuanced understanding of the multifaceted contributions made by teaching professionals in educational institutions and enriching the scholarly discourse on organizational behaviors.

Factors Influencing OCB

OCB exhibited by an employee can be influenced by personality traits, job satisfaction, commitment to the organization, and demographic types (Feather & Rauter, 2004). In addition, organizational support, leadership style, and workplace

fairness also impact the display of OCB in an employee (Zhang et al., 2011). There are four main factors influencing OCB, namely, personality, organizational system, job characteristics, and leadership style (Zhou, 2010). Individual factors influencing OCB job satisfaction, organizational commitment, and personality traits viz. agreeableness, and conscientiousness, whereas, organizational factors include task autonomy, task variety, culture, leadership and social norms (Koopman et al., 2015). Similarly, individual characteristics include conscientiousness, agreeableness, emotional intelligence, job involvement, and job satisfaction, whereas organizational characteristics include management support, organizational justice, job autonomy, and organizational climate (Pickford & Joy, 2016). Likewise, satisfaction in job, involvement in the job, organizational commitment, apparent organizational support, and personality traits like agreeableness, conscientiousness, openness to experience, culture, and leadership support influence how employees exhibit OCB (Organ, 2015). Moreover, the practice of OCB is influenced by social identity, leadership, job satisfaction, organizational commitment, management trust, and organizational justice (Rose, 2016). In a historical review of OCB, it is found that demographic factors like age, rank, gender, and tenure influence the display of OCB among employees (Ocampo et al., 2018). In the same year Organ (2018) pointed out personality traits, job satisfaction, and perceived organizational support as individual influences of OCB, whereas leadership behavior, training and development opportunities, task interdependence, task autonomy, role ambiguity, and organizational justice as organizational influences of OCB in an employee.

In summary, OCB in employees is influenced by various factors. Individual factors include personality traits (agreeableness, conscientiousness), job satisfaction, and organizational commitment. Organizational factors encompass leadership style, task autonomy, culture, and social norms. Additionally, factors like job involvement perceived organizational support and trust in management also impact OCB. Demographic factors, leadership behavior, training opportunities, and organizational justice further influence OCB. Thus, in this study, the individual factor of conscientiousness under personality traits is considered. Similarly, this study also examines the impact of demographic variables on OCB, including age, gender, educational attainment, and rank.

OCB and Organizational Performance

Jahangir et al. (2004) highlights employees behavioral components of OCB, viz. extra-role behavior; disposition of employees to help and cooperate; self-proclaimed organizational ownership; uninterrupted and spontaneous informal contributions; behavior that is not explicitly enforceable, recognized and rewarded; employees' positive intents in the workplace; volunteering for the extra work; support and cooperation to colleagues and boss; strictly adhere to organizational rules and procedures; recommending, supporting and protecting organizational goals. Similarly, Feather and Rauter (2004) emphasize that OCBs enhance organizational performance by improving effectiveness and efficiency. They signify employees' willingness to surpass formal duties, boosting morale, and relationships, and fostering a positive culture; although influenced by job type, management, and industry, the consensus is a positive impact. In addition, Zhou (2010) highlights how improving employee skills, promoting happy work environments, extending resources, and encouraging intrinsic motivation are some of the ways that OCB has a significant impact on organizational performance. Companies should implement strict talent selection, enhance organizational systems, redesign jobs, and adapt leadership styles to encourage more OCB.

Moreover, according to Zhang et al. (2011), OCB can improve the quality of work, reduce employee turnover, facilitate teamwork and enhance customer satisfaction. Furthermore, Koopman et al. (2015) highlight that OCB helps an organization enhance effectiveness, productivity, quality of products/services, and social capital. Similarly, Organ (2015), based on a meta-analysis of 38 analyses, highlights the positive influence of OCB on organizational performance, viz. customer satisfaction, lower operating costs, and enhanced quality performance. In addition, Pickford and Joy (2016) mention that since OCB reduces the need for guidance, coaching and disaster management costs, this saves time for managers to focus on important matters, thus increasing organizational performance. Likewise, Idrus et al. (2019) mentions that OCB plays a fundamental role in enhancing organizational effectiveness. Companies need to prioritize the improvement, motivation, and utilization of each employee's strengths. Employees who exhibit positive attitudes and engage in citizenship behavior become powerful drivers of success in today's global economy.

In summary, OCB enhances organizational performance by improving efficiency, morale, and relationships, as well as fostering a positive culture. It impacts employee turnover, teamwork, and customer satisfaction, contributing to organizational effectiveness, productivity, and quality. Encouraging OCB involves talent selection, system enhancement, job redesign, and adaptive leadership. OCB reduces supervision needs and crisis management costs, saving managerial time and boosting performance in the global economy.

OCB among Teachers: Insights and Gaps

According to Ahmadu and Don (2020), OCBs have gained attention due to their differentiation of employee actions beyond prescribed roles in diverse organizations like educational institution. With globalization and the reorganization of educational systems, higher education institutions now face similar challenges as other organizations. OCB is being recognized and rewarded in employee assessments, as it contributes to both employee efficiency and school organizational competence. Therefore, teacher OCB is crucial in higher education, and school leadership must encourage and support teachers in achieving school accomplishments.

An article studying OCB and Stress among teachers defines OCB as off- the -job description roles like helping colleagues with his/her work, committing extra hours at the institution, working on a holiday, attending work-related seminars, and meeting during your private time (Somech, 2016). OCB, reflected by teachers, incorporates voluntary offerings made without the expectation of a formal reward. Such offerings accumulated over time enhance school effectiveness (Selamat et al., 2017) Many recent studies define OCB among teachers as discretionary behavior that is not formally prescribed, recognized, and rewarded (Gnanarajan et al., 2020).

There are only a few resources available about OCB in the context of Nepal. Shrestha and Subedi (2020) established a positive relation between the display of OCB and the teachers' locality. Another study examining the impact of OCB on organizational commitment (OC) among university faculty reveals a significant influence of civic virtue and courtesy on organizational commitment and suggests potential policy enhancements for university human resource policies (Poudel, 2022). Yet another study by Shrestha and Bhattarai (2022) examines the relationship between 345 school teachers' job satisfaction and organizational citizenship behaviors (OCB). Correlation and regression analysis show a positive correlation

between the two, which supports organizational effectiveness and commitment while also elevating job performance and productivity. All of these factors lead to improved educational achievement in schools. Similarly, Gautam et al. (2005) stated that organizational commitment has a progressive relation with the altruism and compliance dimension of OCB. However, the continuance component of the organizational commitment has a negative relation with the compliance dimension of OCB and is unrelated to altruism, respectively. In another relational study conducted by Subedi and Sthapit (2019) on human resource practices and OCB among Nepalese banks, employee ethnicity and tenure were found to have a significant relation with OCB, whereas no relation was established between gender and OCB. In addition, a study conducted by Chhetri (2017) found OCB to be one of the predictors of employees' engagement. Finally, Timilsina (2016) highlights that the OCB has a major impact on the service quality performances of Nepalese private organizations.

While a few studies have examined the connection between OCB and other aspects among Nepalese teaching professionals, there is a dearth of studies particularly examining the association between OCB and job stress in this setting. Studies already conducted have looked at OCB in connection to locale of instructors, organizational commitment, human resource practices, employee engagement, performance of service quality, and work satisfaction. The connection between OCB and work stress is not well understood among teaching professionals, though. Research on the unique pressures and coping mechanisms teachers face in Nepal is also lacking. Therefore, more investigation is required to determine the precise connection between OCB and workplace stress among Nepalese teachers.

Essentially, Organizational Citizenship Behaviors (OCBs) have attracted a great deal of interest in various settings, including educational institutions where they go beyond assigned responsibilities. In higher education, OCB is helpful in improving the effectiveness of teachers as well as the general organizational competency of schools. Recognizing and rewarding OCB in instructors is essential to achieve academic success and increase effectiveness. Our grasp of OCB in the particular context of Nepal is, unfortunately, limited by the paucity of resources available to investigate this phenomenon further. The association between OCB and factors like staff tenure, staff ethnicity, organizational commitment, and service quality has been studied in previous studies carried out in Nepal. The association between OCB and job stress among Nepalese teachers has not been thoroughly

studied, which is noteworthy because there is currently a research gap in this area. More research is necessary to fully understand this relationship and provide insight into the unique challenges and coping strategies faced by Nepali teachers. In order to solve OCB in the Nepalese educational system and eventually create a favorable work environment for teachers, this comprehensive investigation is essential for formulating sophisticated measures.

Understanding and Addressing Work Stress in Educational Setting

Stress is a relative perception of individuals towards a situation that makes them stressed. Since stress intensity differs from individual to a given situation, different people have different coping mechanisms (Savery, 1986). Stress signifies the physical and mental response of an individual due to some stimuli or stressors that disturb the normal functioning of this individual and, as such, requires coping mechanisms to overcome its impact (Shen & Slater, 2021). Similarly, work stress (WS) is expressed as the negative bodily and emotional response of an employee due to a serious shortcoming in the employee's capabilities or skills, resources, and needs to perform a job in demand (Park, 2007). Work stress is the outcome of an overload of roles, ambiguity in roles, conflict of roles, lack of work autonomy, and decision-making (Savery, 1986). The content and context of work significantly contribute to employee stress in the workplace, with factors such as prolonged work hours, work overload, time pressure, demanding tasks, absence of breaks, task monotony, unfavorable working conditions, limited social interaction among employees, and a dearth of career development opportunities identified as key stressors (Michie, 2002). The causes of work stress can be found in both the individual employee and the organization. Factors like individual's coping mechanism, communication skills and lifestyle may cause work stress. The latter includes job role, involvement in decision-making, job demand, social support, physical exertion, job insecurity, unmet expectations, and unethical behavior that may result in work stress among employees (Park, 2007).

Similarly, in the context of teaching professionals, teacher's stress refers to the physical, mental, and emotional tiredness introduced by a teacher's profession. This may include a heavy workload, poor compensation, demanding classroom environments, and other workplace contexts (Margaret, 1989). Stress poses a significant and detrimental occupational risk for teachers, potentially adversely affecting both educators and educational institutions, as it manifests as a

psychological and physical state resulting from a lack of resources in attempting to fulfill situational demands (Michie, 2002). Teachers' stress is a form of occupational stress that affects teachers (Chen & Miller, 1997). In a descriptive overview of teachers' stress, the reasons for stress in teaching are poor working conditions, poor relations with colleagues, work overload, work underload, repetitive nature of work, and poor institutional values (Margaret, 1989). A study on the psychological health of Chinese educators confirms that factors like many non-teaching tasks, priority on contests, excessive central control in teaching, and poor socio-economic benefits contribute to work stress (Yang et al., 2019). Similarly, a meta-analysis mentions intense workloads, time pressures, lack of resources, misbehavior of students, minimal organizational support, lack of career development opportunities, role ambiguity, autonomy in decision-making, poor working conditions, and work and life balance issues to be the contributors of work-related stress among teachers (Yin et al., 2019). Finally, in a study among university academic staff, it is found that intense workload, administrative issues, unjust reward system, research publication targets, lack of control over jobs, conflict in the roles to be performed, and clarity of roles are some of the organizational factors that cause occupational stress. Other factors include gender, age, type of contract, academic rank, and teaching experience (Shen & Slater, 2021).

High levels of stress in the workplace lead to reduced productivity, long-term psychosomatic illness, hypertension, and even heart attacks among employees (Savery, 1986). Employee stress, causing severe health issues and multifaceted challenges for organizations, leads to cardiovascular disease, burnout, absenteeism, reduced productivity, and turnover, affecting emotions, cognitive functions, behaviors, and physical symptoms (Michie, 2002). Employees in the workplace face poor health issues, are less motivated and are less productive and will be incompetent in the market (Park, 2007). Severity in stress may also introduce feelings of self-detachment and may collapse emotionally (Embse et al., 2019).

Similarly, a review of teachers' work stress highlights that stress adversely impacts teachers' physical and psychological well-being, manifesting in poor health, anxiety, depression, increased absenteeism, decreased motivation, job dissatisfaction, lower self-esteem, and potential burnout (Margaret, 1989). Teachers' stress can lead to burnout, decline in productivity, rise in job dissatisfaction, and plan to leave the profession (Chen & Miller, 1997). Stress among teaching professionals

may result in elevated blood pressure, increased turnover, and higher absenteeism as educators grapple with overwhelming responsibilities within constrained time frames. (Somech, 2016). To exemplify, a study on Chinese teachers confirms that mental health significantly affects the quality of education (R. Yang et al., 2019). A similar study on the emotional labor of teachers has identified emotional exhaustion, burnout, dissatisfaction in teaching jobs, intention to quit, and health-related problems as several outcomes of stress (Yin et al., 2019). Finally, in a study among university academic staff, it is found that the outcomes or consequences of stress among academic staff include negative effects on mental health and well-being, which can lead to greater levels of mental disorders, psychiatric disorders, somatic symptoms, burnout, job dissatisfaction, work withdrawal, and turnover intentions. Additionally, unhealthy coping strategies like substance abuse, unhealthy diet, and smoking may be adopted, which can have further negative consequences (Shen & Slater, 2021).

In summary, stress is a subjective response to situations, varying among individuals with distinct coping mechanisms. Teacher stress, arising from factors like heavy workload and poor compensation, poses risks to educators and institutions. Organizational stressors include long hours, workload, and inadequate social interaction. Teacher stress correlates with various negative outcomes such as poor physical and mental health, burnout, increased absenteeism, and decreased job satisfaction. High workplace stress induces severe health issues and organizational challenges, including reduced productivity and increased turnover. The multifaceted impact on individuals and organizations underscores the complexity of addressing workplace stress.

Work Stress Components

Understanding the components of work stress is essential in addressing the multifaceted impact of stress on individuals and organizations, as highlighted in the earlier discussion on teacher stress and organizational stressors. Delving into the specific components, time stress and anxiety emerge as crucial elements that contribute significantly to the overall experience of workplace stress.

There are two broad components of stress, namely time pressure, i.e., time stress, and the feeling of stress, i.e., *anxiety*. *Time stress* refers to the time pressure arising out of work deadlines or the enormous amount of work to be completed within the

little time available. Similarly, *anxiety* is categorized as a second component of job-related feelings of stress (Parker & DeCotiis, 1983).

Additionally, job stress can be classified into three main types—Environmental stressors, stemming from work conditions like noise and inadequate lighting; Personal stressors, encompassing family issues, financial concerns, and excessive job demands; and Organizational stressors, tied to work design, task structure, and the social atmosphere of the organization—while stressors within these categories may further be categorized as acute or chronic based on the duration and frequency of exposure to specific work conditions or events (Beehr & Franz, 1987). If we look into the keywords and statements like extra hours at work, working on a holiday, attending meetings during private hours (Somech, 2016), and working overtime (Selamat et al., 2017), they all direct toward the *time stress* component of WS. Similarly, the *anxiety* component of WS is reflected in the keywords and statements like – the feeling of unpleasant negative emotions (Kyriacou, 2001), the way one feels, thinks, behaves, and bodily experiences (Michie, 2002). Finally, in a much recent study by Yilmaz (2023), aims to translate and validate Parker's 1983 job stress scale into Turkish, conducting exploratory and confirmatory factor analyses on samples of 167 and 185 teachers, respectively, revealing a two-factor structure of job anxiety and time stress, and confirming the adapted scale's validity and reliability among teachers, consistent with Parker's original findings.

In summary, understanding work stress involves recognizing its components, with time stress and anxiety identified as crucial factors contributing to overall workplace stress. Time stress involves pressure from work deadlines and excessive tasks within a limited time. Anxiety is a key emotional component. Job stress is categorized into environmental, personal, and organizational stressors, with acute or chronic classifications based on duration and frequency. Recent research validates Parker's 1983 job stress scale in Turkish, confirming a two-factor structure of job anxiety and time stress among teachers.

Teacher Stress in Nepalese Context

Exploring work stress components, particularly time stress, and anxiety, provide a foundation for examining their impact on teacher stress in the Nepalese context. This transition underscores the relevance of these stress components in the specific scenario of Nepalese educators, as subsequent sections delve into studies highlighting stress levels among teachers in various educational settings in Nepal.

According to Mondal et al. (2011), school teachers in Pokhara, Kaski, went through mild to moderate levels of stress from their job of teaching, and such stress may have been caused by the condition and types of job. In addition, Katwal (2011) study on university employees in Nepal indicates that teaching faculties, constituting the majority of 44 participants, face higher job stress than administrative counterparts, with the majority experiencing moderate stress levels and significant associations found between stress, gender, and age, particularly highlighting the elevated dual career role stress among females. Similarly, in an empirical study conducted by Jp 52 | P et al. (2012), the results of a study on the impact of occupational stress on job happiness among 268 teachers, namely in higher secondary corporate schools in Kathmandu and Lalitpur, demonstrate a significant correlation between job stressors, job stress, and job satisfaction. Furthermore, Kalikotay (2019), in an assessment of stress among 108 teachers in the field of nursing, found that 63.9% experienced medium levels of stress whereas 20.4% had severe stress, and the majority reported moderate levels of stress linked with managing time, and other work-related stressors. And finally, a much recent qualitative study conducted by Rajbhandari and Rana (2022) on teachers being cyberbullied on social media among 20 participants highlights the loss of confidence, development of fear, anxiety, and stress due to cyberbullying by young students via Facebook.

In summary, various studies on Nepalese teachers reveal widespread stress. In Pokhara, school teachers faced mild to moderate stress attributed to job conditions. University employees, particularly teaching faculties, experienced higher stress levels than administrative counterparts, with gender and age showing significant associations. Studies on job satisfaction, nursing teachers, and cyberbullying emphasized links between stressors, stress levels, and adverse outcomes. The majority falling into a moderate stress level indicates a potential danger zone. These findings underscore the need for targeted interventions and support systems to alleviate stress and enhance the well-being of Nepalese educators across different education levels.

Role of Demographics on Teachers' Organizational Citizenship Behaviors and Work Stress

Researchers have differing claims about the role of demographics, such as gender, age, marital status, rank, tenure, qualification, and job experience in OCB.

In context to gender, Allen and Jang (2016) have highlighted the display of some of the OCB dimensions like OCB-I (altruism and courtesy) are common female characteristics whereas OCB-O (civic virtue, conscientiousness, and sportsmanship) are common male characteristics. Similarly, Dirican and Erdil (2016a) study on academic staff from various Turkish universities found that older staff members exhibit higher Organizational Citizenship Behavior (OCB) than their younger counterparts, gender does not significantly impact OCB, and individuals with higher positions, longer tenure, and superior job performance tend to display more OCB. In addition, Saleem's (2017) research on teachers' Organizational Citizenship Behavior (OCB) indicates that gender significantly influences OCB, with male teachers displaying more OCB than females, while marital status shows no significant impact; furthermore, the study highlights a positive relationship between age, job position, job experience, and OCB. Moreover, in the context of a patriarchal society, where females are expected to accept male dominance. Aytaç et al. (2019) highlight teachers' gender, which may have significance in understanding OCB. Finally, in the context of Nepal, Shrestha & Subedi (2020) established that there exists no relation between gender and OCB.

Similarly, in context to stress, an early study conducted by Cooper and Kelly (1993) found that the general demographic factors like age and tenure in the present post are not directly related to the reported levels of stress. Work overload and managing relationships among staff members are the two job pressures that head teachers report being most prevalent. The head teachers who exhibit extremes of competitiveness, haste, aggression, explosiveness in speech, tense facial muscles, and other Type A behavior patterns, who struggle with work overload and managing relationships at work, and who turn to unhealthy palliative coping mechanisms like drinking and smoking are the most vulnerable to mental illness. In addition, in the context of Nepal, a study conducted by Mondal et al. (2011) has highlighted age, marital status, experience, gender, and low salary as the demographic factors related to burnout among teachers. Moreover, Ferguson et al. (2017) mention that women face a significantly higher amount of stress than men as women have less time available with their children, family, and friends. A recent study by Berebitsky and Ellis (2018) considered a person's race, gender, and native language in a very recent study. Across the board, faculty of color had much higher levels of stress than their white counterparts. All areas of stress were higher for female faculty members, with

personal stress being the biggest difference. It's interesting to see that native English speakers expressed more stress overall than non-native speakers did. Finally, Han et al. (2021) have highlighted age and gender as demographic factors responsible for teachers' stress.

To summarize, research on Organizational Citizenship Behavior (OCB) and Work Stress (WS) in the context of demographics yields mixed results. Some studies suggest gender differences in OCB dimensions, while others find varying influences of age, job position, and tenure. Context-specific findings, such as in patriarchal societies and Nepal, highlight the nuanced relationship between demographics and OCB. Similarly, research on Work Stress (WS) and demographics find that age, marital status, experience, and low salary contribute to burnout among teachers. Additionally, women, especially those with less time for family, face higher stress levels. Factors like race, gender, native language, age, and gender contribute significantly to teachers' stress levels.

Relationship between OCB and Work Stress

Organ and Ryan (1995) have mentioned the potential negative impact on the employee who engage themselves in extra work responsibilities under OCB. Similarly, Bolino and Turnley (2003) also accept that there are benefits to organizations with employees who engage themselves in OCB. However, the added work may have a negative impact on the employee doing so. Similarly, Bolino et al. (2004), also accept the possibility that sometimes employees may deliberately engage themselves in such extra-role behavior to make themselves look better than others. Furthermore, in organizations where OCB engagement of employees is a common practice, the workplace may lack clarity in in-role and extra-role duties and responsibilities, causing ambiguity and further escalating to increased stress among employees. Also, Vigoda-Gadot (2006) emphasizes the expression *compulsory citizenship behavior*, whereby managers push employees towards extra-role behaviors that are not compensated, and such behavior becomes the norm in the work- place, finally causing stress among employees. Finally, Bergeron (2007) argues that the employees' involvement in OCB benefits the organization, but the employee unintentionally compromises the formal task performance, which may jeopardize the employee's career.

While navigating through the findings in various literature, Bolino and Turnley (2003) claim that employee conscientiousness is positively related to

overload in job roles, job stress, and conflict between work and family. Similarly, Somech and Drach-Zahavy (2013) disclose the findings from a sample of 457 employees in different workplaces. And the outcomes, reveal a noteworthy positive relationship between OCB and employee strain. In addition, Somech (2016) found that teachers' occupational cognitive behavior (OCB) has led to job overload, role ambiguity, and role conflict, which compound to cause stress in educators. Her research involved 483 Israeli teachers.

Teachers' stress is the outcome of the lack of sync between the work pressures and demands made on the teaching professionals and their ability to manage or handle those demands (McCarthy, 2019). Most of us may believe in doing the work that we love to do and can do this work more often. However, this approach to work may lead to burnout and impact our mental health severely. Even The World Health Organization recommends increasing the number of healthcare providers who deal with mental health problems due to work overload. Some of the roles that are likely to face burnouts include teachers and principals (Moss, 2019). Stress is more common in education and health-related jobs than in other jobs (Shkëmbi et al., 2015).

The benefits of OCB have been frequently highlighted in the form of improved organizational productivity and implicit benefits to an employee reflecting OCB, However OCB may incur individual costs for the teachers. The demands of the modern-day educational institution requiring teachers to display of OCB, or an ideal teacher behavior may put unnecessary burdens which may significantly impact teachers' well-being and health (Somech, 2016).

Teachers facing work overload, poor communication, and fear of losing job are some of the prominent causes of stress (Faisal et al., 2019). Finally, according to (World Health Organization, 2020), a more structured categorization of employee stress is divided into *work contents* and *context*. The former includes employee experiences such as work monotony, purpose-lacking tasks, lack of variety, too much or too less work, the burden of work deadlines, inflexible working hours, lacking participation and control, whereas the latter includes employee experiences such as poor career development and promotion opportunities, job insecurity, improper pay, role ambiguity and conflict, improper performance evaluation practices, unsupportive workplace with poor interpersonal relationships and

organization culture, and the lack of support from work and office towards maintaining work-life balance.

In summary, engaging in OCB may lead to negative consequences, causing increased employee stress. The voluntary nature of OCB introduces added work responsibilities, blurring role distinctions and heightening stress. Managers enforcing uncompensated extra-role behaviors contribute to stress, while OCB's organizational benefits may compromise an employee's formal task performance, impacting their career. Teachers' OCB contributes to strain, resulting in work overload, role ambiguity, conflict, and exacerbating stress. Stress in teaching arises from a misalignment between job demands and coping abilities.

Policies Related to OCB and Work Stress at the University

Along with the literature on OCB and WS, I have also visited the university's policies and guidelines in order to look into matters related to OCBs and the work stress of teaching professionals and other staff. During my initial scanning of the documents based on the title, I and reviewed the following documents below.

- Kathmandu University Act, 2048 B.S (An act made to establish Kathmandu University)
- Academic Administration Rules, 2049 B.S
- Task Management Rules, 2049 B.S (Also known as *'Karya Wayvasta Niyam, 2049'* in Nepali), and
- Teachers and Staff Service Rules, 2050 B.S and its
  - 16th Amendment in 2079 B.S.

While visiting these acts and rules, there is no mention of OCB or its dimensions explicitly. Similarly, there is no explicit mention of stress or work stress related to teaching professionals at the university. However, in the 'Teachers and Staff Service Rules, 2050', section 3.12 discusses teachers' duties and responsibilities. The section discusses teachers multifaceted roles encompassing various responsibilities, including curriculum development, mastery of subject matter, effective teaching methods, research, fostering teaching and learning quality, and promoting student well-being through physical exercise and sports involvement. They actively engage in the development and delivery of the curriculum, demonstrate interest in its content, and add to the holistic growth and development of the university. Additionally, teachers are expected to participate in school and

university activities, such as convocation ceremonies, meetings, scholarly pursuits, and course committee meetings.

Similarly, sections 4.1 and 4.2 mention the promotion of teachers which is linked to their emphasis on academic and scholarly capacity enhancement. This involves a commitment to curriculum planning and effective teaching. Additionally, active involvement in research and creative activities is a key factor. Teachers are recognized and promoted based on their professional contributions, reflecting their impact and dedication to advancing education and the academic community. Finally, section 8 discusses the expected behavior of the teachers mentioning their presence and daily attendance, discipline, commitment and respect to work and duties, and no participation in political activities.

In summary, there is no explicit nor implicit mention of OCBs or work stress in any of the acts and rules at the university. The document 'Teachers and Staff Service Rules 2050' covers only explicit duties and responsibilities, how they are promoted, and their expected behavior.

Theories Related to Organizational Citizenship Behaviors and Work Stress

After examining university policies related to Organizational Citizenship Behaviors (OCB) and work stress, it's crucial to explore theoretical frameworks explaining OCB's relationship with stress. Social Exchange Theory sheds light on reciprocal interactions influencing OCB participation among teaching professionals. This understanding sets the stage for the subsequent exploration of Role Theory, and Conservation of Resources Theory, and their implications on OCB and work stress among educators at Kathmandu University.

Social Exchange Theory and Organizational Citizenship Behaviors

Social exchange theory dates back to the 1920s and is one of the most popular theories in understanding organization and workplace behavior. Social exchange constitutes a sequence of interactions that results in obligations and commitments that are interdependent and determined by how others behave (Cropanzano & Mitchell, 2005). For instance, how an employee responds to his or her manager depends on how the manager treats the employee (Konovsky & Pugh, 1994). Similar is the relation or exchange between the organization and its employees. According to Elstad et al. (2011), it is ambiguous what brings success to an educational institution, thus demanding the role of teachers to go beyond the formal job performance. Such an engagement of teachers is known as OCB, and in turn, such a behavior among

teachers is the outcome of social exchange between the educational institution and its teachers. For instance, if a teacher gets a positive vibe or a feeling of being respected and cared for in the educational institution from the senior faculties, principal, dean, or colleagues, then in reciprocity, the teacher will also reflect positive, friendly, and helpful gestures and action with colleagues, seniors, and students (p. 405-406).

There are instances where I have sought support from my colleague and in return, I supported back when my colleague is overloaded with work or seeks guidance in any of the office matters. This exchange of support is based on reciprocity. According to Cropanzano and Mitchell (2005), such an exchange of support or reciprocity is possible because of the existing social relationship, which is again based on symbiotic reliance, sense of obligation, and faithfulness. OCB is one such platform where employees reciprocate with one another (Konovsky & Pugh, 1994). Thus, to promote teaching professionals' engagement in OCB, the social exchanges and interactions should flourish in reciprocity. Or in other way, we can understand the extent and depth of social exchanges happening within an educational institution by ascertaining the level of OCB among the teaching professionals.

This study, guided by Social Exchange Theory, posits that organizational citizenship behaviors (OCBs) among Kathmandu University teaching professionals stem from reciprocal social exchanges. Positive interactions and a supportive work environment induce OCBs as expressions of gratitude. The prevalence of OCBs gauges the depth of social exchanges, reflecting symbiotic reliance and mutual faithfulness. Thus, in the absence of this reciprocity, OCB may not thrive.

Role Theory, Organizational Citizenship Behaviors and Work Stress

According to the role theory, people play a range of roles in their individual and professional life, such as spouse, parent, volunteer, or professional, all of which are important and influence their identity and personal development. People frequently play many jobs concurrently or in order in organizational contexts, such as employee, manager, team member, or client. These roles shape the work processes, communication, performance, assessment, and perception, which also generate organized interdependencies. The successful operation of both individuals and organizations depends on roles (Sluss et al., 2011). It focuses on a fundamental aspect of social life: the presence of distinct behavioral patterns known as roles. It seeks to understand these roles by assuming that individuals occupy social positions and have

expectations for their own behavior as well as the behavior of others within those positions (Biddle, 1986). Similarly, the daily activities such as being a mother, manager, or teacher are just individuals acting out publicly ascribed roles. Every task has a certain set of commitments, anticipations, norms, and behaviors that the individual must deal with and carry out (Pawliczek et al., 2022). Last but not least, the role theory of leadership extends the ideas of sociological role theory to leader-follower interactions. According to this perspective, positions serve as a vital link between people and groups and are integral to social structures. When it comes to leadership, role theory views it as a process of differentiation in which members of the group work together to accomplish group objectives more quickly while simultaneously attending to their own needs (Winkler, 2010).

However, Organ and Ryan (1995) have mentioned the potential negative impact on the employee who engage themselves in extra work responsibilities under OCB. Similarly, Bolino and Turnley (2003) also accept that there are benefits to organizations with employees who engage themselves in OCB. However, the added work may have a negative impact on the employee doing so. Similarly, Bolino et al. (2004), also accept the possibility that sometimes employees may deliberately engage themselves in such extra-role behavior to make themselves look better than others. Finally, Bergeron (2007) argues that the employees' involvement in OCB benefits the organization, but the employee unintentionally compromises the formal task performance, which may jeopardize the employee's career.

According to Role Theory, teaching professionals at Kathmandu University manage multiple roles, including formal responsibilities and voluntary OCBs, which increase workload and role conflicts, thereby heightening work stress; this emphasizes the need for supportive work environments to mitigate these effects.

Conservation of Resources Theory and Stress

The Conservation of Resources (COR) theory states that stress arises when vital resources are either truly lost, put at risk of being lost, or cannot be obtained despite best attempts. This theory explains human behavior by highlighting our innate drive to acquire and save resources for survival. These resources include personal strengths, social connections, and the ability to use complex tools and language (Hobfoll, 1989). This resource acquisition and conservation are essential for individual survival and building strong social bonds. People essentially use these essential resources to build a support system for upcoming difficulties in addition to

using them to manage stress. When individuals, families, or organizations successfully obtain and keep personal, social, and material resources, it fosters a sense of capability to handle stressful situations. COR theory is valuable for enhancing our grasp of stress in organizations because it highlights that some events are inherently stressful, not just how individuals see and judge situations, as proposed by Lazarus and Folkman's stress-appraisal theory (1984). Unlike solely focusing on changing individual views, COR theory underscores the importance of safeguarding and nurturing resources to cope with stressors (Hobfoll et al., 2018).

Within the research on teaching professionals at Kathmandu University, the results indicate that engaging in Organizational Citizenship Behaviors (OCB) might introduce additional roles and responsibilities, potentially leading to increased workload, time pressure, and role conflicts. The added role complexity and demands associated with OCB can be seen as a situation where individuals invest their resources, such as time and energy, into behaviors that go above and beyond the job requirements. As a result, there is a potential risk of resource depletion, contributing to heightened levels of work stress among teaching professionals. The positive aspects of OCB, such as reciprocity, social support, acknowledgment, or future prospects, may act as resources that individuals aim to acquire and conserve. These resources, gained through engaging in positive behaviors at work, contribute to the capability of handling stressful situations. In essence, the COR Theory provides a valuable lens for interpreting the results by emphasizing the resource dynamics involved in OCB and its potential implications for stress among teaching professionals at Kathmandu University.

Lastly, this study argues that teaching professionals at Kathmandu University who engage in OCB disburse precious resources like time and energy outside of their formal jobs. In this act of disbursing precious resources like time and energy, they also gain social capital or social assets like respect, recognition which is again a valuable resource gain. This claim is based on the Conservation of Resources (COR) Theory (Hobfoll, 1989). The COR theory states that people experience stress when confronting real or potential resource loss and are stress free or reduce the levels of stress when resources are gained. OCBs, being voluntary and positive contributions, may heighten workload, time pressure, and role conflicts, risking resource depletion and causing work stress. On the contrary, display of altruism, courtesy, sportsmanship, may also lead to gain of resources like respect, recognition among

colleagues, supervisors in the work place which is a social asset. The theoretical framework suggests that this added complexity from OCBs could elevate work stress or diminish work stress as individuals fear or experience resource loss or resource gain respectively.

Research Gap Identification

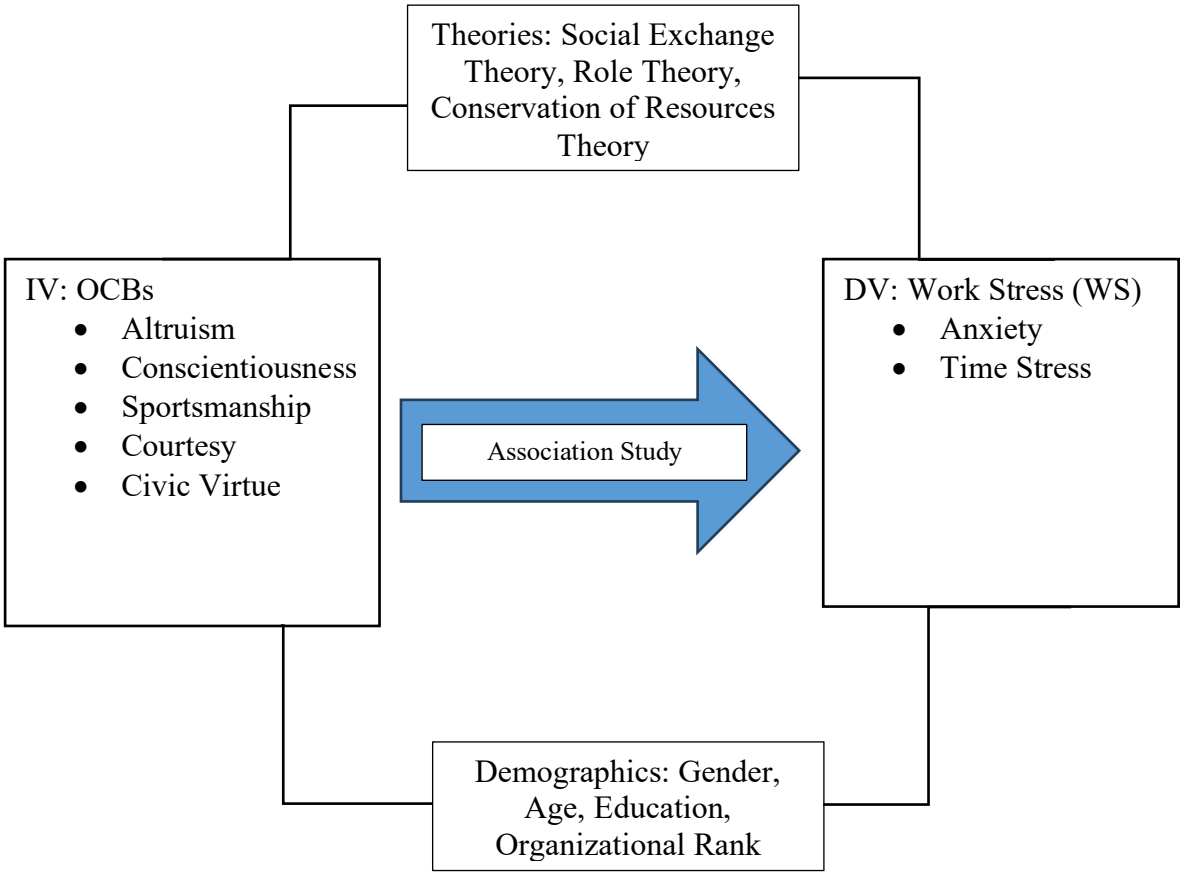
With companies demanding more from their employees, the employees may indulge themselves in long work hours and put extra effort into getting things done. However, the personal impact on the employee is largely ignored (Bolino & Turnley, 2003). Most of the research has emphasized the positive side of OCB and less in areas where OCB can be damaging to employees personally (Bolino et al., 2004). Such a gap is filled in this research as this research study attempts to study the relationship between OCB and WS and the influence of OCB on WS.

Similarly, previous research has been conducted on various topics like - OCB of faculty and accomplishment of high school students (DiPaola & Hoy, 2005); understanding determinants and dimensions of teachers' OCB (Oplatka, 2006); OCB and burnout among primary school teachers (İnandı & Buyukozkan, 2013); relational study between organization alienation and OCB of primary school teachers (Dağlı & Averbek, 2017) and others. However, minimal research has been conducted on OCB and strain (Somech, 2016). So, research related to OCBs, work stress, OCB, and work stress in the context of teaching professionals in higher education is missing. Thus, in this research, the context is that of a prominent educational institution in Nepal with 7 different schools, namely – education, arts, law, engineering, medical sciences, sciences, and management. The teaching professionals deal with varying number of students respective to the school they are associated with, work with other teaching professionals and education leaders in their respective schools. In addition, these teaching professionals have different educational degrees (like – PhD, MPhil, Master, and Bachelor) and varying levels of teaching experience, which together influence their rank in the overall institution (namely – Professor, Associate Professor, Assistant Professor, Lecturer, Teaching Assistant, and Faculty).

In addition, patriarchal Nepalese society requires the study of OCB and its resulting stress exerted on male and female teaching professionals (Aytaç et al., 2019). Thus, this study contextualizes the role of gender and its possible influence on OCB and WS among teaching professionals.

Finally, the time in context cannot be ignored. The data collected from respondents happened to be during the time of COVID-19, and this makes the entire study unique since there may be the influence of the stressful time influencing OCB and WS levels among teaching professionals.

Conceptual Framework for Association Study of OCB and WS



Source: (Biddle, 1986; Cropanzano & Mitchell, 2005; Hobfoll, 1989; Hobfoll et al., 2018; Niehoff & Moorman, 1993; Parker & DeCotiis, 1983)

This framework studies the association between OCBs and work stress (WS) with the support of the theories; namely, social exchange theory and role theory. Additionally, five distinct dimensions are considered under the independent variable OCB in this study. These dimensions are civic virtue, sportsmanship, conscientiousness, kindness, and altruism. Similarly, there are two components to the dependent variable WS: anxiety and time stress.

CHAPTER III
PHILOSOPHICAL FOUNDATION AND METHODOLOGY

The link between OCB and WS among Kathmandu University teaching professionals is the subject of this study. In this section, some methodological presumptions are discussed in order to continue this study. Research design, population and sample, sampling strategy, study tool, data collection process, set of hypotheses, data normalcy, questionnaire administration, validity, reliability, and ethical issues are all covered under the section headings. They also cover the philosophical assumptions that underpin the entire research project.

Philosophical Foundation of the Study

There always lies a philosophical base that researchers carry forward in their quest to know (Creswell & Plano Clark, 2018). My quest is reflected in my research topic, that is – 'The Relationship between OCB and WS among teaching professionals at Kathmandu University'. This topic happens to be a social science research since this is a research study in education that considers teaching professionals' behavior and cognitive responses. According to Black (2002), social science investigates a variety of facets of human interaction and behavior. Psychology focuses on individual behavior, while sociology analyses social dynamics. Cognitive, emotional, sociological, and psychological elements are all considered in educational research to better understand teaching and learning. Furthermore, Cohen et al. (2018) inquire about the nature of reality from two sides: objective in nature or as a result of individual thought processes or individual perceptions.

I believe that the variables OCB and WS are perceived differently or with differing intensities by the teaching professionals considered in this study. These differences in feelings or perceptions may arise among teaching professionals due to a variety of contextual variables like the number of students they teach, their association to the school under the university, their highest educational degree, teaching experience, organizational hierarchy, and other demographic variables like age and gender. In addition, I have also made an attempt to quantify such human perceptions through structured questionnaires. Thus, these differing feelings of OCB and WS was examined under the philosophy of general objectivity.

General Objectivism as the Ontological Assumption

Ontology refers to the assumptions that shape our worldview (Bhattacherjee, 2012). Objectivism as a research ontology posits that social phenomena exist independently of observers and can be studied objectively to discover universal laws, similar to the natural sciences. It is also about our assumptions in the knowing of reality or in the knowing of a phenomenon (Cohen et al., 2018). The behavior of these teaching professionals in the context of OCB and WS can be determined objectively or probabilistically. However, such behavior may vary depending on the context discussed above. On one hand, there is an attempt to quantify the perception of OCB and WS, and on the other, this study attempts to incorporate the differences in the perceptions due to the given context.

Thus, the ontological approach is maintained with general objectivism of OCB and WS among teaching professionals.

Epistemological Assumptions

Epistemology is all about understanding how we learn about different ways of looking at the world (Cohen et al., 2018). It is the study of how we believe the world should be studied. Like, while studying how society functions, should we take an "only the facts" approach or consider how people feel and view things? (Bhattacherjee, 2012). As explained in the ontological assumptions about knowing the truth objectively and probabilistically, yet there are chances of not getting to the truth fully (Robischon, 1958). Not getting to the truth fully is restrained by the context of the teaching professionals. In this study, the challenge is to minimize the restraints introduced by the context of the teaching professionals so as to get closer to the truth or reality. So, to ensure a better understanding on the perception or views of the respondents, I have adopted a technique of getting closer to the research participants while collecting responses. Thus, post positivist epistemology stand was adopted to comprehend the perception of teaching professionals on OCB and WS.

Finally, various formats have been used to connect or get closer to the research participants. Getting closer or building rapport with the research participants is ensured by having face-to-face interaction, via telephone (mobile phone), email conversations, and Google forms before or during the collection of the responses. According to Booker et al. (2021), the most common formats for administering a survey are face-to-face, mobile phone, and email, and in recent times, there has been a growing use of electronic surveys.

Adoption of Value Free Axiology

Along with ontology, epistemology, and methodology, axiology is one of the important characteristics of a research paradigm that "asks what ought to be" and takes ethical factors into account. It takes into account what would be useful for study as well as how to carry out ethical research in that field (Brown & Dueñas, 2020). Value's function in research (Creswell & Plano Clark, 2018).

My axiological stance, shaped by over a decade in the teaching profession, centers on the intrinsic worth of education and a commitment to social justice. Engaging in research, I believe in the philosophical underpinnings that guide our quest for knowledge. In my study, 'The Relational study of OCB and WS among teaching professionals at Kathmandu University,' I recognize the multifaceted nature of human behavior and cognition. While acknowledging the subjectivity in human perceptions of OCB and WS, I advocate for relative objectivity, appreciating the diversity of individual experiences. I employ a holistic approach, drawing from Max Weber's 'verstehen,' to comprehend the intricacies of social realities, fostering a deeper understanding among research participants through various communication methods.

In social science research, the axiology of this study remains conscientiously centered on value free study. Acknowledging that research in the social sciences inherently involves navigating the complex interplay of perspectives and values, it acknowledges that researchers and participants in this study possess their own subjectivities, which can influence the research process. However, the primary objective is to uphold the principles of objectivity and probability ensuring an objective exploration of the association between OCB and WS within the context of teaching professionals in the educational institution.

Post-Positivist Approach as the Research Paradigm to Study OCB and WS

In the context of my research on 'The Relational Study of OCB and WS among Teaching Professionals at Kathmandu University', where the approach to getting closer to the nature of reality is based on probability as well as the introduction of relativism due to the context of teaching professionals which leads to an ontological stand of relative-objectivism with the epistemology of getting closer to the participants to enhance understanding about the variables, and axiology that values free leads to a Post-Positivist research paradigm. Post-positivism aligns with

the multifaceted nature of social science research, acknowledging the philosophical underpinnings that influence our pursuit of knowledge.

According to Panhwar et al. (2017) post-positivism is an applicable research paradigm in educational research. Highlighting that most educational research being dominated by constructivist or interpretivist methods, educational research also requires to be carried through scientific investigations. In addition, according to Cohen et al. (2018), post-positivism is a philosophical perspective that emphasizes the incomplete, conjectural, and provisional character of human knowledge while acknowledging its limits. Although it acknowledges that there is an objective world, our perception of it is subjective and impacted by many different variables. Post-positivists contend that theories and values impact facts and observations, allowing for various interpretations and coexisting realities. Post-positivism emphasizes the falsifiability of hypotheses and the necessity of rigorous testing while still embracing the scientific process. It advocates for a probabilistic and dynamic view of the universe, bridging the gap between scientific and social sciences (p.16-17).

Ontologically, it recognizes the existence of an objective world but acknowledges that human perception of this reality is subjective and influenced by contextual variables. The study aims to quantify perceptions of OCB and WS while embracing the idea that these perceptions may vary due to individual and contextual differences. This post-positivist stance allows for multiple interpretations and coexisting realities. Epistemologically, the research seeks to minimize contextual constraints, recognizing the influence of researchers' and participants' subjectivities on the research process. It adopts a technique of getting closer to research participants, akin to Max Weber's 'verstehen,' to gain deeper insights and understanding. Axiologically, the study maintains a balanced position, acknowledging the presence of values and perspectives while prioritizing objectivity and probability in investigating the connection between teaching professionals' OCB and WS. It aims to bridge the gap between scientific rigor and the complexities of social sciences, embracing the provisional and dynamic nature of human knowledge.

Quantitative Cross-Sectional Field Survey as the Research Design

According to Bhattacherjee (2012), a research design is a detailed plan for gathering information in a research study. It acts as a "blueprint" for practical research that tries to answer particular questions or test certain ideas. This plan should cover at least three things: the creation of data collection tools, determining the sample size,

and finally, data collection. Similarly, according to Cohen et al. (2018) research design is the careful planning and organization of a study. Selecting research questions, hypotheses, data-gathering techniques, and the research's general framework are all part of it. The goal of research design is to make sure that the data gathered is connected to the research questions, unbiased, dependable, and statistically reliable.

In this research study, a quantitative research method with a cross-sectional field survey method is adopted to ensure practicality and efficiency in data collection, generalizability, quantitative collection of data, standardization and comparability and ensure participant anonymity and confidentiality. According to Bhattacherjee (2012), the variables OCB (independent) and WS (dependent) are studied at the same time unlike longitudinal field surveys. Furthermore, the research paradigm considered in this research study is that of post positivism, which considers objectivity that is relative to individual experiences. A quantitative approach with a survey method ensures quantification while collecting, analyzing, and interpreting the responses.

A carefully conducted survey is less costly, representative of the population that allows descriptive and inferential analysis of the numerical data, facilitates hypothesis testing and the study of relationships (Cohen et al., 2018). Surveys make it easier to acquire quantitative data, which is perfect for analyzing the association between factors like OCB and WS. Researchers can collect numerical data using structured questionnaires using Likert scales or other measuring scales, which can then be statistically analyzed to find trends, correlations, and relationships between variables.

Finally, Gürbüz (2017) also emphasizes on survey methods as it facilitates the use of software to record and analyze data. In a survey method, the use of questionnaires with the same set of questions facilitates data collection from a larger set of respondents. The research issues in this study are examined using questionnaires as a survey instrument and SPSS software for data point recording and analysis. Surveys also offer comparability and standardization. The data gathered becomes consistent and allows researchers to examine it evenly when the same set of questions and rating scales are given to all participants. This standardization also makes it possible to compare OCB and WS levels across various educational institutions or levels of education for various groups of teaching professionals.

Population and Sample Size Determination for Research on OCB and WS

For this study population includes the entire full-time teaching professionals in the higher education. The staff strength at Kathmandu University (KU) is 461 for teaching and 1464 for nonteaching staff (Kathmandu University, 2021). Since the respondents in this study are the full-time teaching professionals at Kathmandu University, the population of such teaching professionals is 461. Thus, the sample is derived considering 461 teaching professionals as the population.

According to Cohen et al. (2018), a larger sample size is better for quantitative research as this enhances reliability and facilitates the computation of complicated inferential statistics, in addition, at a 95% confidence level and a 5% confidence interval, the sample sizes for 450 and 500 populations, respectively, are 207 and 217.

To be more precise, a simplified proportions formula for sample size calculation was created by Yamane (1967). At 95% confidence level and p = 0.5, the formula is as follows-

$$n = \frac{N}{1 + N(e^2)}$$

Where, N describes the population size, n is the sample size, e^2 is the precision level and 1 is constant. Using the above formula to calculate the sample size –

$$n = \frac{461}{1 + 461(0.05)^2} = 214$$

Hence minimum sample size for this study is 214.

Sampling Technique and Sampling Strategy

Sampling type or a combination of sampling types varies in a range of situations. Scenarios range from having a straightforward subjective decision to one involving a sample intended to demonstrate cause-and-effect or a legal challenge. Extrapolation is feasible and more reliable when the target population is selected and the sampling procedure is known. Researchers should also consider how sample selection affects the validity and scope of the conclusion (Schreuder et al., 2001).

In a similar study on OCB, Shrestha and Subedi (2020) conducted a pilot study among 35 teachers for a sample size of n=345. For n = 100 people, 10 people are considered reasonable for a pilot study (Johanson & Brooks, 2010). This is about 10 percent of the sample size. So, in this research work with n=214, the sample size for a pilot study will be 23 teaching professionals. In Table 1, the proportionate

sample for the pilot study is 22. However, a total of 23 respondents participated in the pilot survey.

Table 1: *Respondent population, proportionate sample, and proportionate pilot sample*

Teaching Professionals	Total at University	Proportion % (approx.)	Proportionate Sample Size	Proportionate Sample Size for Pilot Study (approx..)
Professors	42	9.0	19	2
Associate Professors	64	14.0	30	3
Assistant Professor	161	35.0	75	7
Lecturer	158	34.0	73	7
Teaching Assistant	30	7.0	15	2
Faculty	6	1.0	2	1
Total	**461 (N)**	**100%**	***214 (n)***	***22 (pilot-n, approx.10% of n)***

(Kathmandu University, 2021)

In this study, an attempt has been made to ensure the incorporation of the views and perceptions of different teaching professionals at the university, teaching professionals namely - *professor, associate professor, assistant professor, lecturer, teaching assistant, and faculty (full time)* at the institution under this study for which a probability sampling has been adopted. According to Creswell and Plano Clark (2018), the process of choosing persons or cases from a population for a research study in which there is a known probability of selecting each person or instance is known as probability sampling. Because probability samples enable researchers to draw conclusions about a population from the features of a sample, they are crucial to study.

Initially, the population (total teaching professionals = 461) and sample size (n = 214) are known. In addition, the respective number of teaching professionals according to their rank is also known. This categorization demands a stratified sampling where the rank of teaching professionals is considered as strata. According

to Burns and Burns (2008) stratified sampling is used to ensure that the sample fairly represents the subgroups or strata within a population. In order to do this, the population is divided into homogeneous groups, or strata, from which samples are randomly chosen according to each stratum's proportion to the total population. Using stratified sampling can assist in improving sample representativeness and precision by controlling for significant variations between groups and lowering variability within each group.

Given the availability of this information, the sample *n = 214* is divided into the proportions derived from the population proportions categorized into different ranks (strata's) of teaching professionals. Going ahead, the samples are picked following a systematic random sampling. According to Cohen et al. (2018), systematic random sampling, a probabilistic method, includes picking every nth component in a population after a random starting point. For illustration, if a researcher seeks a sample of 100 from 1,000, they select elements at regular intervals, like 10, 20, and 30, ensuring a representative sample. The random starting point is crucial to avoid bias. This method is valuable for large or dispersed populations where direct access to each element is impractical. It guarantees an equal likelihood of inclusion for each element in the sample, promoting representativeness and statistical reliability in research studies.

Thus, from each stratum (rank) of teaching professionals a random starting point is determined, and nth element is selected to complete the selection of teaching professionals.

Data Collection Procedure

Data collection is something that consumed a major chunk of the study. This is because of the COVID-19 pandemic and its lockdown. The university entered a lockdown starting in April 2020 and lasted for more than a year. There was no other option than using Google Forms during the lockdown. The email addresses and phone numbers of the teaching professionals were manually gathered from the websites of different schools under the university for questionnaire requests and the following follow-ups. Emails with links to the Google Forms were sent to the teaching professionals with humble requests to support the dissertation work. Every day for about 2 months, such emails were sent to those teaching professionals who had not responded to the questionnaire. In about 2 months, approximately 70 teaching professionals (32 percent) out of the sample *(n = 214)* responded, and after that, the

progress was almost nil with an online survey. While simply placing the email subjects as ‘Survey Questionnaire’ the response rate was very minimal, with time the email subjects were adapted to ‘Seeking Your Support’, and later ‘Urgent Request’, these keywords somehow helped me to reach a total of approximately 70 responses. Slowly, after a year and a half, the lockdown was over, and the university opened physically, finally, the teaching professionals were back to their workstations.

An additional challenge in the data collection process was to maintain the proportion of samples taken from each stratum. To ensure this, the randomly chosen teaching professionals from each stratum were sent with Google forms initially and later after the COVID lockdown was over, the remaining samples of teaching professionals were provided with physical questionnaires at their work stations at different schools at KU. The data collection was completed about 1 month after the teaching professionals were back in their respective workstations at the university.

A 7-point Likert scale designed for OCB dimensions and WS components is the basis for the survey items. According to Cohen et al. (2018), the use of a 7-point scale ensures reliability by facilitating decision-making among respondents who are indecisive with their choices, and the use of a larger scale provides clarity in responses (p. 483). The developed scales in the questionnaire are adapted to match the Nepalese context based on discussions with my university professors and dissertation supervisors.

Tools of Data Collection

The study tool considered in this study is a structured survey questionnaire in which the scales for the independent/predictor variable are adapted for the OCB developed by Niehoff and Moorman (1993) and for the dependent/criterion variable work stress (WS) developed by Parker and DeCotiis (1983). A request email was sent to the researchers Niehoff and Moorman, for which I was given permission to use the scale in this study. An email authorizing the use of the scale is provided in Annex 2. However, the email address for the researcher's Parker and DeCotiss could not be found. Because of this, I have ensured to use of proper citations where relevant.

Furthermore, in the questionnaire, there are 8 items under the demographic variables, 20 items under the independent variable OCB, and 13 items under the dependent variable WS. In addition, to contextualize the questionnaire items, some of the original questions are adapted to fit into the context of an educational institution and the participants as teaching professionals.

Contextualizing and Framing a Questionnaire

Contextualizing scale requires to fulfill certain assumptions like cultural relevance, linguistic equivalence, conceptual equivalence, psychometric properties, sensitivity to contextual factors, normative comparisons, ethical considerations and stakeholder involvement.

Cultural relevance: The scale items should be relevant and meaningful within the cultural context of the target population. Items may need to be rephrased or replaced to reflect cultural norms, values, and practices (Van de Vijver & Leung, 1996).

Linguistic equivalence: The translated scale should maintain the same meaning as the original. Back-translation and pre-testing are often necessary to ensure that translated items accurately reflect the original content (Brislin, 1970; Sousa & Rojjanasrirat, 2011).

Conceptual equivalence: The underlying constructs should be measured by the scale are understood and interpreted similarly across different contexts. Researcher should ensure that the constructs are universally applicable or appropriately adapted to the new context (Flaherty et al., 1988).

Psychometric properties: The scale should retain its reliability and validity in the new context (DeVellis, 2016; Nunnally, 1994). All the items used in the questionnaire in this study have a minimum Cronbach's alpha value of 0.7.

Sensitivity to contextual factors: Contextual factors such as socio-economic status, education, and local customs are considered in the adaptation process. Items need to be modified to reflect the social and environmental conditions of the target group (van de Vijver, Harkness, & Mohler, 2003).

Ethical considerations: The adapted scale respects the ethical standards of the target population. This requires taking informed consent, ensuring confidentiality and cultural sensitivity in the administration of the scale (APA, 2017).

Stakeholder involvement: Inputs from local stakeholders (e.g., community leaders, experts) is valuable in the adaptation process. This requires engagement with local stakeholders to gain insights and validate the appropriateness of the scale (Wallerstein & Duran, 2010).

In addition, according to Cohen et al. (2018), researchers should frame questionnaires with clear, concise, relevant questions, avoiding difficult, biased, or emotionally loaded wording. Use familiar terms, personalize wording, complete

sentences, and ensure questions are comprehensible, specific, and applicable to respondents' experiences, while avoiding leading, threatening, or embarrassing questions.

OCB Scale

The study uses the OCB scale from Niehoff and Moorman's (1993) publication in the Academy of Management Journal. This scale has 20 items covering altruism, courtesy, sportsmanship, conscientiousness, and civic virtue, each with four items. Responses are rated on a seven-point Likert Scale. A Cronbach's alpha of at least 0.70 ensures reliability in the pilot study and the full sample of 214 participants.

Contextualizing the Questionnaire Items for OCB

Firstly, the question items initially were in passive voice and the same has been restated to active voice in the final questionnaire. For instance, *help others who have heavy workloads* have been restated to *I help others who have heavy workloads*. Similarly, the statement *willingly gives of his/her time to help others who have work-related problems* have been restated to *I willingly give my time …….. work-related problems*. The rationale for such a restatement is that the statement 'I help others who have heavy workloads' is more specific and personal. It explicitly states that the speaker (the person saying "I") engages in the behavior of helping others with heavy workloads. It provides a direct association between the action and the speaker.

Secondly, the original questionnaire item under the OCB dimension Sportsmanship says - *Tends to make "mountains out of molehills" (makes problems bigger than they are)* is simplified to *I tend to make ..... they are*. Similarly, the statement – *Keeps abreast of changes in the organization* is restated to *I keep myself well-informed of changes in the university.*

Treatment of Reverse Question Items under OCB

In the adopted scale, originally, there were four reverse question items under the OCB dimension sportsmanship. For instance, if a respondent checks 1 (on a scale of 1 to 7) on the question item *'A lot of my time is consumed while complaining about unimportant matters'*, this requires special treatment while entering the rating in the SPSS, whereby a score of 1 in this question item reflects the highest possible display of OCB on the given scale. However, this being a reverse question statement requires the entry of 1 to be recorded as 7 while entering the data in SPSS and in the analysis

thereafter. Similarly, a score of 2 and a score of 3 means 6 and 5, respectively. The details are available in the research questionnaire available in the Annex 1.

Work Stress Scale

The novel scale established by Parker and DeCotiis (1983) is a 13-item scale that has been adapted for study, viz. – *time stress (5 items)* and *anxiety (8 items)*. Items are scored on a seven-point Likert Scale. Similarly, Baba Jamal, (1991); de Clercq and Belausteguigoitia, (2020); and Xie, (1996) have also used this scale in their respective studies. A Cronbach's alpha of at least 0.70 is maintained in the pilot study and the entire sample of 214 to guarantee reliability. The details are available in the research questionnaire available in the Annex 1.

Contextualizing the Questionnaire Items for Work Stress

In the original scale, active voice is used where "I" is used to represent the respondent. This way, the respondent teaching professionals can directly relate to themselves while responding to the questionnaire. There are question items that are paraphrased to keep the meaning intact. For instance, the use of idioms in the question item is not frequently used while conversing in Nepali context. So, the original statement – *I spend so much time…… forest for the trees*, has been restated to - *I spend a lot of time in the daily work routines which have blurred my long-term objectives as an academician*. Similarly, the original statement – *There are lots of times …… right up the wall* has been restated to - *There are many times when my job makes me anxious*.

Ensuring Reliability and Validity in the Study

In order to ensure the reliability, Cronbach alpha is used. The Cronbach alpha is a way to measure how reliable something is in terms of its internal consistency. It's also known as the alpha coefficient of reliability or simply the alpha. This measure delivers a coefficient that reflects how each item in a multi-item scale correlates with the summation of all other relevant items. This measure is helpful in determining the internal consistency of the items (Cohen et al., 2018, p.270). Similarly, pilot testing facilitated the development of questionnaires by ensuring their internal consistency, viz., identifying if respondents have a similar understanding of the questions and the rate of response.

For a sample size of 100 people, 10 people are considered reasonable for a pilot study (Johanson & Brooks, 2010). In a similar study on OCB, Shrestha and

Subedi (2020) conducted a pilot study among 35 teachers for a sample size of n=345. This is about 10 percent of the sample size. So, in this research work with n=214, the sample size for a pilot study will be 23 teaching professionals. In Table 2, the proportionate sample for the pilot study is 22. However, a total of 23 respondents participated in the pilot survey.

Table 2: *Actual number of respondents and responses received for pilot testing*

Teaching Professionals	Proportionate Sample Size for Pilot Study (approx..)	Actual number of responses received
Professors	2	2
Associate Professors	3	3
Assistant Professor	7	9
Lecturer	7	7
Teaching Assistant	2	1
Faculty	1	1
Total	***22***	***23***

Source: Field Survey 2021

In Table 3, a pilot test using Cronbach's alpha for each of the dimensions and components under OCB and WS, respectively. Under the OCB dimensions, there are five dimensions, with each dimension having 4 items, making an aggregate of 20 items under the construct OCB. Similarly, there is an aggregate of 13 items under the construct work stress, viz. anxiety – 5 items, and time stress – 8 items. The Cronbach alpha for the dimensions under the OCB is – altruism (0.789), courtesy (0.700), sportsmanship (0.716), conscientiousness (0.750), and civic virtue (0.772). Similarly, the Cronbach alpha for the components under the work stress are – anxiety (0.857), and time stress (0.919).

According to Vaske et al. (2017), it is conventionally accepted that a scale used in human dimensions research is considered "adequate" if it has an alpha coefficient of 0.65-0.80. In addition, the alpha value is contingent on the number of items in the scale. There is a curvilinear relationship between the number of items and alpha, which means that when the number of items in the scale is increased, the scale's reliability also increases (p.3). The Cronbach's alpha for all dimensions in Table 3 meets the range criteria of 0.65 – 0.80.

Table 3: *Questionnaire items reliability check using Cronbach's' alpha in the pilot test*

Construct	Dimensions/Components	Question Items	Cronbach's Alpha
OCB	Altruism	4	0.789
	Courtesy	4	0.700
	Sportsmanship	4	0.716
	Conscientiousness	4	0.750
	Civic Virtue	4	0.772
Work Stress	Anxiety	5	0.857
	Time Stress	8	0.919

Reliability Testing of Questionnaire Items Based on Sample of 214

The reliability and internal consistency of the questionnaire's items are gauged by Cronbach's alpha. The use of Cronbach's Alpha reliability test guarantees that responders share a common interpretation of the questionnaire's contents (Cohen et al., 2018, p.270). Cronbach's Alpha is calculated for all 5 dimensions under OCB, where all dimensions have a 0.70 and above alpha value as mentioned in Annex 2. Similarly, Cronbach's Alpha is calculated for both the components under the Work Stress, where both have an alpha value greater than 0.70, as mentioned in Annex 2.

Table 4: *Reliability of questionnaire items using Cronbach's Alpha based on a sample size of 214*

Variables	**Dimensions/Components**	**Item Numbers**	**Cronbach's Alpha**
OCB	Altruism	1, 2, 3, 4	0.752
	Courtesy	5, 6, 7, 8	0.735
	Sportsmanship	9, 10, 11, 12	0.701
	Conscientiousness	13, 14, 15, 16	0.735
	Civic Virtue	17, 18, 19, 20	0.787
Work Stress	Anxiety	1, 3, 4, 6, 7	0.825
	Time Stress	2, 5, 8, 9, 10, 11, 12, 13	0.832

On the other hand, validity is ensured viz. content validity, context validity and predictive validity. Content validity is ensured with a deductive approach that discusses popular literature on OCB, WS, OCB dimensions, and WS components. In addition, the items in the questionnaires are adapted from scales, namely – OCB scale from (Niehoff & Moorman, 1993) and the work stress scale from (Parker & DeCotiis, 1983) further enhancing content validity. Approval-seeking emails were sent to all researchers for the use of OCB and WS scales. However, I was only able to secure a positive response with approval to use the OCB scales from Professor Brian Niehoff. There was no reply email from Parker and DeCotiis. The evidence of an email reply from Professor Brian Niehoff is provided in Annex 3. The study demonstrates a robust approach to validity by aligning with established definitions of Organizational Citizenship Behavior (OCB) and Work Stress (WS) derived from prominent and recent research studies, further assuring on content validity. Research papers on work stress and organizational citizenship behavior frequently employ these measures. Furthermore, the variable indicated in these scales is covered in detail in this study's literature review part.

To ensure context validity, first the adaptation of the question items from the original scales for OCB and WS has been thoroughly discussed with research expert at the university and my dissertation supervisor. Second, the study maintains relevance to the study population, teaching professionals, through a thorough literature review and discussion focused on their context. Third, the scientifically calculated sample drawn from university teaching professionals at Kathmandu University further enhances the context validity, as the findings can be reasonably generalized to this specific population. Fourth, context validity is ensured to make sure that the results of the study fairly represent the population. To this end, stratified sampling ensures that teaching professionals are fairly represented, and the Yamane (1967) method is utilized to establish the sample size. Finally, the pilot study and the inputs during the process has been incorporated making the final set of questionnaire items valid for further study.

The existence of literatures describing the relationship between OCB and WS and their dimensions provides a strong basis to predictive validity. The correlation and regression analysis as a tool to access the relationship are based on the interplay between these two variables derived from the vast literatures.

The validity is reinforced by the meticulous scrutiny of the questionnaire and its items. The involvement of a research supervisor, an expert in the field, adds an additional layer of credibility to the research instrument. The pilot testing phase not only ensures the clarity and appropriateness of the questionnaire and its items but also serves as a practical measure to identify and address potential issues, contributing to the overall validity of the study. In essence, the research study takes a comprehensive approach to content validity by grounding its definitions, variables, and measurements in well-established concepts and methodologies, ensuring the relevance and reliability of the findings for the target population.

Utilizing Likert Data as an Interval Data Type

The scales discussed above for the variables OCB and WS are developed into a Likert scale questionnaire item. The attempt here is to quantify the teaching professionals' perceptions of OCB and WS. Converting perceptions and feelings from qualitative data ranging from 'Almost Never True – 1 to Almost Always True – 7) into quantitative data creates the ordinal/interval ambiguity. This ambiguity also exists due to the inherent difficulty of claiming equality in the differences between the two data points.

Similarly, Subedi (2016) notes that while Likert-type data is typically considered ordinal, some researchers treat it as an interval. However, assuming equal intervals between Likert scale points can be problematic. This creates an ordinal/interval dilemma in data analysis. The study suggests using Cronbach's alpha for Likert data's interval nature and ordinal alpha for its ordinal nature. Whether the data is on a Likert scale or items, the ordinal/interval nature depends on the analysis. There's no methodological difference regarding midpoints, but defining their meaning is epistemologically valuable. In another study by Wu and Leung (2017), the Likert scale is often treated as an interval scale, although it is technically ordinal. Increasing points to eleven (1 to 11) can mitigate this issue. Simulations support this approach for better approximating underlying distributions and enhancing generalizability. In this study, a Likert scale is used with data points from 1 to 7, and to minimize the ordinal/interval dilemma in data analysis Cronbach's alpha is used.

Finally, according to Sullivan and Artino (2013), parametric tests, when applied to Likert scale data with adequate sample size and normal distribution, provide robust and largely unbiased results, as supported by Dr. Geoff Norman's comprehensive review, making them suitable for analyzing Likert scale responses,

especially in constructing survey scales to measure complex concepts in medical and educational research.

Questionnaire Administration During COVID-19

With the advent of COVID-19 and its ongoing spread, which once was considered a potent threat to human lives, the possibility of personally meeting the respondents and collecting data through self-administered questionnaires was diminishing. So, with due care given to the respondent's health and safety, initially, the data collection was conducted using google forms and internet-based platforms. However, a very demotivating response rate from the respondents and a persisting COVID pandemic compelled the university to go into an online mode of teaching and learning. Then, the speed at which data was collected was like a crawling tortoise. With luck and COVID lockdowns over, the university then continued its teaching and learning physically on campus. Finally, I was able to complete the data collection in about a month.

Statistical Analysis Methods for Research Hypothesis

The research hypothesis is aimed at studying the relationship between OCB and WS with correlation and regression analysis. Similarly, the hypothesis attempts to study the differences in the OCB and WS among genders with the use of the T-Test. Finally, the hypothesis attempts to study the differences in the OCB and WS among teaching professionals at different ranks (e.g., professor, associate professor, and so on), age group, and their highest educational level for such studies involving more than two categories of analysis of variance (ANOVA) is conducted.

The t-test is useful for comparing two groups or the same group on two variables or occasions with parametric data from random samples, assuming data independence, but in educational research involving more than two groups, it is not appropriate; hence, Analysis of Variance (ANOVA) is essential for accommodating three or more groups, as it is specifically designed for comprehensive group comparisons in parametric data analysis, making it the preferred method for complex research scenarios with multiple groups and variables (Burns & Burns, 2008; Cohen et al., 2018).

Table 5: *Research hypothesis and its corresponding data analysis and tests*

Research hypothesis and its corresponding data analysis and tests

Alternate Hypothesis	Data Analysis and Tests Using
H 1: There is a statistically significant difference in the OCB and WS between male and female teaching professionals.	Correlational Analysis
H 2: There is a statistically significant difference in the OCB and WS among teaching professionals at different ranks.	Regression Analysis
H 3: There is a statistically significant difference in the OCBs and WS among teaching professionals at different age groups.	T-Test
H 4: There is a statistically significant difference in the OCBs and WS among teaching professionals at different educational levels.	ANOVA
H 5: There is a statistically positive significant relationship between OCB and WS among teaching professionals.	ANOVA
H 6: There is a statistically significant effect of OCB dimensions on WS components among teaching professionals.	ANOVA

Ethical Consideration

As a student of Kathmandu University (KU), I understand the importance of maintaining objectivity and impartiality in my research. My association with KU provides me access to valuable resources and a supportive academic environment, which are instrumental in conducting rigorous research. However, it is crucial to ensure that my findings are not influenced by my affiliation.

To ensure objectivity and impartiality, ethical guidelines provided by Kathmandu University School of Education has been followed. In addition, *the informed consent of the respondents has been given the* utmost priority. This includes *competence, voluntarism, full information disclosure* and *comprehension*. Firstly, it is understood that the teaching professionals at the studied institution are rational and reflect competence as respondents and can understand and answer the items presented in the questionnaire. Free and voluntary participation in responding to the questionnaire has been ensured to promote voluntarism. In addition, a full disclosure of information about the research, and the use and treatment of data collected has been clearly stated to the respondents. This has been further facilitated with the adoption of KUSOED ethical guidelines. Moreover, comprehension has been ensured by making the teaching professionals fully comprehend the type of the research work

undertaken. Respondents are kept anonymous; only the aggregate data is used to conduct analysis. Finally, surveys provide participant secrecy and anonymity, encouraging candid and objective replies. This is vital when discussing delicate subjects like work satisfaction since participants may feel more at ease sharing their thoughts and experiences, producing more accurate and trustworthy data.

CHAPTER IV
DATA ANALYSIS AND PRESENTATION

The chapter begins with the study of the demographic profile of teaching professionals. The demographics include gender, age, education level, and rank, viz. professor, associate professor, and so on. The chapter also includes the study of descriptive like mean, standard deviation, skewness and kurtosis of the dependent and independent variables. The hypothesis tests studies correlation and regression of the dependent variable (WS) and independent variable. Similarly, for comparisons on OCB and WS according to the demographics, t-test and ANOVA studies are incorporated.

Demographic Profile of Teaching Professionals

Table 6 discusses the composition of gender and age of the teaching professionals within the sample. Males happen to be the dominant gender, with 71 percent. Similarly, the age group 35-44 years is the dominant age group with 50.50 percent. Further elaboration on gender and age group distribution is discussed below.

Table 6: *Frequency of teaching professional respondents incorporating gender and age*

Items		Frequency	Percentage
Gender	Male	152	71.00
	Female	62	29.00
Age	Less than 25	3	1.40
	25 to 34	53	24.80
	35 to 44	108	50.50
	45 to 54	40	18.70
	55 or over	10	4.70
Total		214	100.00

Field Survey 2021/22

Major Representation of Male in Gender Composition

The questionnaire comprised males, females, and others in the gender category. The data in Table 6 clearly depicts that the involvement of male candidates in the teaching profession at Kathmandu University is substantial, with 71 percent

being male teaching professionals and only 29 percent as female teaching professionals. There were no respondents in the other category. This reflects a serious gender imbalance in the dataset.

Age Group 35-44 Prevalent

There are five age groups, with a majority of 50.50 percent of respondents falling in the age group of 35-44. The second biggest age group is 25-34, which accounts for 25% approximately.

Teaching Professionals Based on their Gender and Rank

Table 7 shows gender representation across different ranks of teaching professionals. The majority of teaching professionals in the higher rankings of teaching professionals are male.

Table 7: *Frequency of teaching professional respondents based on their gender and rank*

		Rank						Total
Items		Professor	Associate Professor	Assistant Professor	Lecturer	Teaching Assistant	Faculty	
	Male	16	18	59	48	7	4	152
Gender	Female	2	10	19	29	2	0	62
Total		18	28	78	77	9	4	214

Field Survey, 2021/22

To elaborate further on the table, it is clearly visible that male teaching professionals are dominant across all ranks. A lower representation of female teaching professionals in the category of professors and associate professors may exist due to their high educational level. Such analysis and interpretation are conducted in Table 7, where it is clearly observed that out of the overall 76 PhDs, 64 (84%) are male, and only 12 (16%) are female teaching professionals. However, in the lecturer category, the representation of females is approximately 38 percent (29 lectures out of 77 lecturers). This is a relatively better representation than other categories, like the category of professors where only 11 percent are female professors. It is quite a surprise that no other genders were reported except for males and females.

According to the National Statistics Office (2021), the overall literacy rate in Nepal is 76.2%, where literate males account for 83.6% and literate females account for 69.4%. Similarly, according to Acharya et al. (2020), the literacy status of female

youth is categorized by different socio-demographic characteristics. It shows that the female youth literacy rate in Nepal is 87.4% for those aged 15-19 and 81.8% for those aged 20-24. Additionally, data shows that the percentage of illiterate women who are single owing to separation, divorce, or widowhood is larger among them (35.5%) than among those who are married now (23.4%) and have never married (7%). Furthermore, given that 57.7% of Terai Dalit females lack literacy, Terai Dalit females appear to be more susceptible and uneducated than other young girls. The aforementioned data and statistics indicate that women in Nepal have a low literacy rate, and the makeup of the teaching staff at the study institution appears to mirror this reality.

Educational Level Attained Among Male and Female Teaching Professionals

Table 8 highlights the distribution of gender-based and their respective educational level attained.

Table 8: *Frequency of educational level attained among male and female teaching professionals*

		Highest Academic Degree				Total
		Bachelors	Masters	MPhil	PhD	
Gender	Male	7	71	10	64	152
	Female	3	41	6	12	62
Total		10	112	16	76	214

Field Survey, 2021/22

There is a major representation of masters and PhD teaching professionals in the sample, with 112 (52%) master's degrees and 76 (36%) PhD teaching professionals. Among the 152 males and 62 females in the dataset, the distribution of the highest academic degree achieved shows the highest number of PhD among males. There are 64 males (84%) with a PhD and only 12 females (16%) with a PhD. A similar pattern can be observed in the overall Nepalese attaining higher education. In a study conducted by Karki and Karki (2020), which examines Nepal's educational attainment from a gender perspective, there exists a gender gap in the country's educational attainment. More females than males in Nepal complete lower secondary education, but their share of the total falls as education levels rise. In Nepal, about two-fifths of the literate population accomplished primary education, one-fifth accomplished lower secondary education, and just a small percentage (2.8%) of the

population has achieved graduation and post-graduate education and above (1.0%). Compared to men, women's accomplishments appeared to be lower, particularly in higher education. This disorder might make it harder for women to take advantage of society's many chances.

Composition of Teaching Professionals at Different Ranks at Different Schools

Table 9 reflects the distribution of the teaching professionals at different ranks (Professors, Associate Professors, Assistant Professors, Lecturers, Teaching Assistants and Faculty) across different schools.

Table 9: *Composition of teaching professional respondents according to their rank and school*

Ranks	School Medical Sciences	Sciences	Edu	Arts	Engg	Mgmt	Law	Total
Professor	5 (27.78%)	5 (27.78%)	1 (5.56%)	0	6 (33.33%)	1 (5.56%)	0	18
Associate Professor	9 (32.14%)	7 (25.00%)	1 (3.57%)	1 (3.57%)	6 (21.43%)	3 (10.71%)	1 (3.57%)	28
Assistant Professor	6 (7.69%)	29 (37.18%)	4 (5.13%)	0	24 (30.77%)	10 (12.82%)	5 (6.41%)	78
Lecturer	25 (32.47%)	12 (15.58%)	0	0	31 (40.26%)	4 (5.19%)	5 (6.49%)	77
Teaching Assistant	3 (33.33%)	0	0	0	6 (66.67%)	0	0	9
Faculty	2 (50%)	1 (25%)	0	0	0	0	1 (25%)	4
Total	50 (23.36%)	54 (25.23%)	6 (2.80%)	1 (0.47%)	73 (34.11%)	18 (8.41%)	12 (5.61%)	214

Field Survey, 2021/22

Overall, the School of Engineering, Sciences, and Medical Sciences have a significant presence across multiple academic levels, indicating their prominence within the university. School of Education and Arts show relatively lower representation across all ranks.

The classification of teaching professionals varies at different educational institutions. The academic Handbook at Boston University was reviewed, and it was noted that the following ranks and titles were assigned to academic appointments: Instructor, Assistant Professor, Associate Professor, and Professor (*Classification of Ranks and Titles | Faculty Handbook*, n.d.). A general understanding is that if a

particular school has a higher number of students, it may also have a high number of teaching faculties.

Descriptive Statistics of OCB and WS Variables

These statistical measures are used to describe and analyze the characteristics of the dataset, providing insights into the central tendency, variability, range, shape, and distribution of the data. Cohen et al. (2018) measure central tendency (mean, median, mode) and describe average values and variance measures (range, IQR, standard deviation) to quantify data spread, while skewness and kurtosis indicators reveal distribution shape and potential outliers.

Before delving into the hypothesis testing that uses the mean of the constructs and normality of the distribution to base its findings and discussion, it is quintessential to understand the nature of the dataset under the constructs studied in this research work. The observations in Table 10 provide insights into the central tendency, spread, and shape of the data for each trait. Several traits have been examined in the study of work stress and OCBs to understand their situational aspects. The details of the normality tests using the skewness and kurtosis values are reflected in Annex 4.

Table 10: *Descriptive for independent (OCB) and dependent (WS)*

Construct	Mean	SD	Minimum	Maximum	Skewness	Kurtosis
Altruism	5.020	1.105	2	7	-0.228	-0.582
Courtesy	6.660	0.184	6.25	7	-0.05	-0.494
Sportsmanship	6.620	0.214	6.08	7	0.081	-0.836
Conscientiousness	6.675	0.209	6	7	-0.072	-0.700
Civic-Virtue	6.615	0.201	6.16	7	0.328	-0.464
Anxiety	3.290	1.343	1	7	0.260	-0.737
Time Stress	4.029	1.162	1	7	-0.140	0.006

The table provides descriptive statistics for OCBs (independent variable) and Work Stress (dependent variable) dimensions. For OCBs, mean scores are relatively high, with Altruism being the lowest (5.02) and Courtesy the highest (6.66). Work Stress components, Anxiety, and Time Stress, have lower mean scores (3.29 and 4.03, respectively).

Finally, according to Cohen et al. (2018), skewness measures the asymmetry of a data set's distribution, indicating whether values are skewed towards one side of

the mean, whereas the concentration of data in the distribution's tails is measured by kurtosis, helping identify differences in distribution shapes and potential outliers. Also, skewness and kurtosis that lie between a negative 1 and a positive 1 are considered acceptable for a normal distribution.

For the skewness in the table, for both the dependent and independent variables, all the dimensions have a fairly symmetrical distribution. Since the skewness is close to zero, we can say that the distribution is close to a normal distribution.

Assumptions Tests Before T-Test, ANOVA, Correlation and Regression Analysis

In order to proceed with correlation and regression analysis, it is ensured that data comes from related pairs with scores on both X and Y from the same respondent. In addition, there is the use of interval scales with each set of scores approximately normally distributed. Furthermore, a linear or approximately linear relationship between the variables, along with homoscedasticity, is ensured (Burns & Burns, 2008). These assumptions help maintain the reliability and validity of the analyses.

In sync with the above assumptions, this study ensures that data comes from related pairs where OCB and its dimensions are considered independent variables and WS and its components are considered dependent variables. Furthermore, the 'Research Methodology' chapter discusses how the Likert scale, ordinal data is used as an interval data type. According to Sullivan and Artino (2013), parametric tests, when applied to Likert scale data with adequate sample size and normal distribution, provide robust and largely unbiased results, as supported by Dr. Geoff Norman's comprehensive review, making them suitable for analyzing Likert scale responses, especially in constructing survey scales to measure complex concepts in medical and educational research.

Univariate Outlier Study

Starting with a univariate outlier study for all the OCB dimensions and components of Work Stress, none of the responses to the questionnaire items had a z-score greater than (plus/minus) 1.96. There exists an outlier if the standard deviation of (plus/minus) is 1.96 or higher (Mowbray et al., 2019). Similarly, the threshold commonly utilized to detect outliers in a normal distribution is a z-score of 1.96 (Cohen et al., 2018). This cutoff point of 1.96 standard deviations from the mean is frequently employed to identify outliers within the dataset. Therefore, any data point that falls beyond this threshold is deemed an outlier (Burns & Burns, 2008). The

highest observed z-score is 1.918 (positive) for an item under Work Stress *(Annex 5: Item 8_I sometimes fear the …… call might be job-related)*. Thus, no outliers were observed under a univariate outlier study. Similarly, for multivariate outliers, the Mahalanobis distance was used, and the result showed no outliers.

Multivariate Outlier Study

The first step taken in this section is to check for multivariate outliers. A total of four variables are considered for a multivariate outlier check. Among these four variables, total work stress is considered a dependent variable, and the remaining three variables include – total OCB, sportsmanship, and conscientiousness. Only two dimensions of OCB are considered for a regression analysis because only these two variables show some degree of correlation with the work stress dimensions.

Mahalanobis Distance is used to identify outliers. With this in the SPSS data file a new column named MAH_1 is created. The MAH_1 data is transformed to compute the targeted variable 'Probability_Maha' with the expression – '1 - cdf. chisq (? *, ?**)' (Cohen et al., 2018, p. 808-809) where, ?* requires to select Mahalanobis Distance and ?** refers to a total of 4 items, i.e., total work stress, total OCB, sportsmanship and conscientiousness. In the data file, a column with the heading 'Probability_Maha' displays the critical values of chi-square. These data are sorted in decreasing order to compare at a significance level of 0.001, which means that if the chi square's critical values are less than or equal to this threshold, such values are regarded as outliers. After arranging the critical values of the chi-square in descending order, the minimum value reflected is 0.002, which is above the set significance level of 0.001. Thus, there are no outliers and a regression analysis can be conducted.

Normal Distribution

According to Cohen et al. (2018), skewness and kurtosis values that lie within a negative 1 and a positive 1 can be taken as a reference to understand normality (p.736). In this study, the data is normally distributed (Annex 4: Data normality based on the skewness and kurtosis values).

Linearity and Homoscedasticity

Linearity is examined by using a scatter plot, along a significant correlation coefficient. In addition, homoscedasticity assumption is crucial for the reliability of regression models. Homoscedasticity implies that the spread or dispersion of the residuals remains consistent throughout the range of predicted values. If homoscedasticity is violated, it suggests that the variability of errors systematically

changes as the dependent variable's anticipated values fluctuate. Residual scatter graphs and histograms can be used to check the assumption for homoscedasticity (Burns & Burns, 2008; Cohen et al., 2018).

Scatter plots and a substantial correlation coefficient between the independent variable (OCB) and dependent variable (WS) guarantee the study's linearity. Similarly, in the scatter plot for the dependent variable WS, the residuals exhibit a nearly rectangular distribution, aligned along a straight line that passes through the zero points of both the horizontal and vertical axes. Finally, the histogram ensures normality and shows no skewness or significant outliers in the regression standardized residual (Annex 6: Linearity Scatter Plots, Residual Scatter Plots, and Histograms).

Investigating Relationships and Differences in OCB and Work Stress

In the hypothesis testing below, six null hypotheses are stated, analyzed, and interpreted. These hypotheses are tested using correlation analysis to study the association between OCBs and work stress, and regression analysis is used to study the influence of the relevant OCB dimensions on work stress, and t-test to study the mean differences in OCB and WS among male and female teaching professionals and finally, the analysis of variance (ANOVA) is accompanied to study the mean differences of OCB and WS in context to teaching professionals age group, academic qualification, and rank. Below is an individual analysis and interpretation of the results for the formulated hypothesis.

H 1: A statistically significant variation exists between male and female teaching professionals in the OCB and WS.

An independent samples t-test was accompanied to compare OCB for male and female teaching professionals.

Table 11: *Mean Differences in OCB Between Male and Female*

		Levene's Test for Equality of Variances				t-test for Equality of Means					
		Mean	SD	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference
											Lower	Upper
OCB	Male	3.60	0.17	2.0	0.16	-0.82	212	0.414	-0.201	0.024	-0.068	0.028
	Female	3.62	0.147			-0.87	129.39	0.387	-0.201	0.023	-0.065	0.026

There are no significant differences (t (212) = -0.818, p = 0.414) in scores for males (M = 3.604, SD = 0.169) and females (M = 3.624, SD = 0.147). The extent of the differences in the means (mean difference = - 0.201, 95% CI: -0.068 to 0.028 for males and CI: - 0.065 to 0.025 for females) is very small as reflected in Annex 7. Hence, the stated alternate hypothesis is not supported.

Similarly, an independent samples t-test was accompanied to compare Work Stress for male and female teaching professionals.

Table 12: *Mean Differences in Work Stress Between Male and Female*

		Levene's Test for Equality of Variances				t-test for Equality of Means						
		Mean	SD	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
											Lower	Upper
Work Stress	Male	3.46	1.06	1.42	0.24	-0.27	212	0.783	-0.043	0.154	-0.346	0.26
	Female	3.51	0.91			-0.29	132	0.768	-0.043	0.144	-0.327	0.24

There are no significant differences (t (212) = -0.276, p = 0.783) in the work stress scores for males (M = 3.464, SD = 1.067) and females (M = 3.506, SD = 0.907). The extent of the differences in the means (mean difference = -0.042, 95% CI: -0.346 to 0.261 for males and CI: -0.327 to 0.242 for females) is small (Annex 7). Hence, the stated alternate hypothesis is not supported.

H 2: A statistically significant variation exists among teaching professionals at different ranks in the OCB and WS.

Initially, the hypothesis test looks for statistically significant variations in the OCB levels between teaching professionals and who are professors, associate professors, assistant professors, lecturers, teaching assistants, and faculty. The test used to study the differences in the OCB among teaching professionals based on their rank is the analysis of variance (ANOVA).

Table 13: *One Way ANOVA to Study Differences in the OCB among Teaching Professionals at Different Ranks*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.385	5	0.077	3.043	0.011
Within Groups	5.269	208	0.025		
Total	5.654	213			

The ANOVA table reflects that the OCB among teaching professionals differs significantly ($F_{5,208} = 3.043$, $p = 0.011$ i.e., $p<0.05$). Hence, the stated alternate hypothesis is supported.

In addition, the equal variance assumption was not made because of Levene's statistics' significance ($p = 0.017$) based on mean. Dunnett's T3 post hoc comparisons were evaluated for individual differences between groups. The test found a substantial variation between the mean results of the lecturers ($M = 3.568$, $SD = 0.176$) and the teaching assistants ($M = 3.732$, $SD = 0.096$). At the 0.05 level, the mean differences were significant. However, in the sample taken, there are 77 lecturers and 9 teaching assistants, which makes it unreliable to consider the difference that is claimed to be significant. Lastly, the data shown in Annex 8 did not reveal any notable distinctions among the various groups of teaching professionals.

The second part of the hypothesis test is to find out if there exist statistically significant differences in work stress among the teaching professionals who are professors, associate professors, assistant professors, lecturers, teaching assistants, and faculty. The test used to study the differences in Work Stress among teaching professionals based on their rank is the analysis of variance (ANOVA).

Table 14: *One Way ANOVA to Study Differences in Work Stress among Teaching Professionals at Different Ranks*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	29.892	5	5.978	6.459	<.001
Within Groups	192.511	208	0.926		
Total	222.404	213			

The ANOVA table reflects that the Work Stress among teaching professionals differs significantly ($F_{5,208} = 6.459$, $p<0.001$) - (Annex 8)**.** Hence, the stated alternate hypothesis is supported.

In addition, the equal variance assumption was not made because of Levene's statistics' significance ($p = 0.018$) based on mean. Dunnett's T3 post hoc comparisons were evaluated for individual differences between groups. The test found a notable variation between the mean scores of the Professors ($M = 3.55$, $SD = 1.113$) and the teaching assistants ($M = 1.96$, $SD = 0.959$). Another significant difference was found between the mean scores of Associate Professors ($M = 3.50$, $SD = 0.946$) and the Teaching Assistants ($M = 1.96$, $SD = 0.959$). In addition, a significant difference is observed between the mean scores of Assistant Professors ($M = 3.374$, $SD = 1.079$) and the Teaching Assistants ($M = 1.960$, $SD = 0.959$). Similarly, another significant difference is observed between the mean scores of Lecturers ($M = 3.766$, $SD = 0.809$) and the Teaching Assistants ($M = 1.960$, $SD = 0.959$). Finally, significant differences were observed between the mean scores of Lecturers ($M = 3.766$, $SD = 0.809$) and Faculty ($M = 2.803$, $SD = 0.299$). At the 0.05 level, the mean differences were significant. However, there was no notable variation between other groups of teaching professionals.

H 3: There is a statistically significant difference in the OCB and WS among teaching professionals in different age groups.

Initially, the hypothesis test looks for statistically significant variations in the OCB levels between teaching professionals in various age groups. These age groups (in years) are – less than 25, 25-34, 35-44, 45-54, and 55 and over. The analysis of variance (ANOVA) test was employed to investigate how the age groups of teaching professionals differed in terms of their OCB.

Table 15: *One Way ANOVA to Study Differences in the OCB among Teaching Professionals at Different Age Groups*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.066	4	0.016	0.616	0.651
Within Groups	5.588	209	0.027		
Total	5.654	213			

The ANOVA table reflects that the OCB among teaching professionals does not differ significantly across age groups (F4,209 = 0.616, p = 0.651 i.e., p>0.05. The details are reflected in Annex 9**.**

The purpose of the second portion of the hypothesis test is to determine whether or not teaching professionals who are divided into various age groups have statistically significant variations in their work stress levels. These age groups (in years) are – less than 25, 25-34, 35-44, 45-54, and 55 and over. The analysis of variance (ANOVA) test was employed to investigate how the age groups of teaching professionals differed in terms of their Work Stress.

Table 16: *One Way ANOVA to Study Differences in Work Stress among Teaching Professionals at Different Age Groups*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.850	4	1.213	1.165	0.327
Within Groups	217.553	209	1.041		
Total	222.404	213			

The ANOVA table reflects that the Work Stress among teaching professionals does not differ significantly across age groups (F4,209 = 1.165, p = 0.327, i.e., p>0.05). The details are reflected in Annex 9**.**

H 4: A statistically significant variation exists in the OCB and WS among teaching professionals at different educational levels.

First, the hypothesis test looks for statistically significant differences in the OCB levels amongst teaching professionals with varying educational backgrounds. These educational levels are – Bachelors, Masters, MPhil, and PhD. Using an analysis of variance (ANOVA) test, teaching professionals' OCB differences according to educational attainment were investigated.

Table 17: *One Way ANOVA to Study Differences in the OCB among Teaching Professionals with Different Educational Levels*

	Sum of Squares	df	Mean Square	F	Sig.

Between Groups	0.171	3	0.057	2.182	0.091
Within Groups	5.483	210	0.026		
Total	5.654	213			

The ANOVA table reflects that the OCB among teaching professionals does not differ significantly across different educational levels (F3,210 = 2.182, p = 0.091 i.e., p>0.05). The details are reflected in Annex 10. Hence, the stated alternate hypothesis is not supported.

The purpose of the second component of the hypothesis is to determine whether or not teaching professionals with varying educational backgrounds have statistically significant differences in their work stress levels. These educational levels are – Bachelors, Masters, MPhil, and PhD. Based on their educational attainment, teaching professionals' work stress levels were compared using the analysis of variance (ANOVA) test.

Table 18: *One Way ANOVA to Study Differences in Work Stress among Teaching Professionals with Different Educational Levels*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	13.246	3	4.415	4.433	0.005
Within Groups	209.158	210	0.996		
Total	222.404	213			

The ANOVA table reflects that the Work Stress among teaching professionals differs significantly across educational levels (F3,210 = 4.433, p = 0.005, i.e., p<0.05). The details are reflected in Annex 10. Hence, the stated alternate hypothesis is accepted.

In addition, the equal variance assumption was made because of the insignificant (p = 0.175) Levene's statistics based on the mean. Tukey HSD post hoc comparisons were evaluated for individual differences between groups. The test found a noticeable variation between the mean scores of Bachelors (M = 2.50, SD = 1.3028) and Masters (M = 3.604, SD = 0.912). Another significant difference was found between the mean scores of Bachelors (M = 2.50, SD = 1.302) and PhD (M = 3.49, SD = 1.052). At the 0.05 level, the mean differences were significant.

H 5: A statistically positive significant relationship exists between OCB and WS among teaching professionals.

The hypothesis demands gauging the strength of the relationship as well as the direction of the relationship between OCB and Work Stress. This means that if the variable OCB increases, the other variable, Work Stress will also increase or vice-versa. The statistical test used to test the stated hypothesis is the Pearson Product Correlation.

Table 19: *Bivariate correlation matrix for Total OCB and Total Work Stress*

Construct		OCB	WS
Total OCB	Pearson Correlation	1.00	-0.104
	Sig. (1-tailed)		0.066
Total WS	Pearson Correlation	-0.104	1
	Sig. (1-tailed)	0.066	

**. Correlation is significant at 0.01 level (1 – tailed).

According to Schober et al. (2018) correlation coefficient of 0.00 to 0.09 describes the existence of a negligible correlation, 0.10 to 0.39 describes the existence of a weak correlation, 0.40 to 0.69 describes the existence of a moderate correlation, 0.70 to 0.89 describes a strong correlation and 0.90 to 1.00 describes a very strong correlation.

A Pearson Product Correlation of OCB and Work Stress describes the existence of a weak negative correlation that is statistically less significant ($r = -0.104$, $p = 0.066$). Similar findings are reflected in the bivariate and multivariate correlation matrix on Table 20. The findings suggest a weak negative link, meaning when one goes up, the other goes down a bit. In other words, the study suggests that there may be a slight, albeit indirect, correlation between being helpful at work and experiencing less stress. The correlation matrix below shows the relationship between the OCB dimensions and the WS components.

Table 20: *Bivariate correlation matrix for OCB dimensions and WS Components*

Construct	Anxiety	Time Stress	Total WS
Altruism	-0.084	0.097	0.000
Courtesy	-0.206**	-0.002	-0.125
Sportsmanship	-0.616**	-0.342**	-0.549**
Conscientiousness	-0.321**	-0.013	-0.200**
Civic Virtue	-0.166**	0.020	-0.089
** Correlation is significant at 0.01 level (1 – tailed).			

Source: Annex 11

To further our understanding of the relationship among various OCB and Work Stress components, a multivariate correlation matrix is presented in Table 20. The results reveal the existence of a negative correlation between the OCB dimensions and the Work Stress components. A Pearson Product Correlation of OCB dimensions and Work Stress components describes the existence of weak negative to moderate negative correlation. In the table above, there exists a distinctly low and insignificant negative correlation between altruism and anxiety ($r = -0.084$), a distinctly low and insignificant positive correlation between altruism and time stress ($r = 0.097$), a very low negative correlation between courtesy and anxiety ($r = -0.206$), a markedly low and insignificant negative correlation between courtesy and time stress ($r = -0.002$), a moderate negative correlation between sportsmanship and anxiety that is statistically significant since $p<0.01$ ($r = -0.616$, $p = 0.000$), a low negative correlation between sportsmanship and time stress that is statistically significant since $p<0.01$ ($r = -0.342$, $p = 0.000$), a low negative correlation between conscientiousness and anxiety that is statistically significant since $p<0.01$ ($r = -0.321$, $p = 0.000$), a markedly low and negligible adverse relationship between conscientiousness and time stress ($r = -0.013$, $p = 0.425$), a very low adverse relationship between civic virtue and anxiety ($r = -0.166$, $p = 0.008$), and finally a markedly low and negligible positive correlation between civic virtue and time stress ($r = 0.020$, $p = 0.383$).

Finally, there exists a moderate and significant negative correlation ($r = -0.549$, $p <0.001$) between the OCB dimension sportsmanship and total work stress. Similarly, there exists a weak but significant negative correlation between the OCB dimension conscientiousness and total work stress ($r = -0.200$, $p = 0.002$).

This being a one-tailed study, the correlation is significant at the 0.01 level (Kim, 2015). *Thus, the Alternate Hypothesis is not accepted*. The study found that being helpful at work (OCB dimensions) is linked to lower work stress. Specifically, being cooperative and conscientious is connected to less anxiety and time-related stress. Overall, the findings support the idea that certain positive behaviors at work are associated with lower stress levels.

H 6: A statistically significant effect of OCB dimensions exists on WS components among teaching professionals.

The dependent variable, work stress (WS), was regressed on the independent variable, OCB. In Table 20, it is clear that there exists a minimal correlation between OCB dimensions and work stress components except for the OCB dimensions sportsmanship and conscientiousness. Thus, the test used is regression analysis considering only two of the independent variable, conscientiousness and sportsmanship. Only these two variables are considered in the regression analysis due to their acceptable level of significance in the correlation analysis.

Table 21.1: *Model Summary for Work Stress with Conscientiousness and Sportsmanship*

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.512	0.262	0.255	0.882

a Predictors: (Constant), Conscientiousness, Sportsmanship

b Dependent Variable: Work Stress

Table 22.2: *Significant Relationship Between Work Stress (DV) and Conscientiousness and Sportsmanship as (IVs)*

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.202	2	29.101	37.395	<.001
	Residual	164.202	211	0.778		
	Total	222.404	213			

a Dependent Variable: Work Stress

a Predictors: (Constant), Conscientiousness, Sportsmanship

Table 23.3: *Standardized Coefficients for Conscientiousness and Sportsmanship*

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	19.798	2.358		8.395	<.001
	Sportsmanship	-4.253	0.517	-0.509	-8.219	<.001
	Conscientiousness	-0.061	0.53	-0.007	-0.115	0.908

a Dependent Variable: Work Stress

In the table 21.1 the adjusted R Square = 0.255. This depicts that in the regression model, OCB accounts for approximately 26 percent of the variance in WS. According to Cohen et al., (2018) such an adjusted R square percentage is considered as a modest fit for a regression model (p.804). The details of the regression tables are reflected in Annex 12**.**

Likewise, table 21.2 indicates a statistically significant correlation between OCB and WS with $p<0.001$. As a result, it is not by accident that OCB and WS are related among teaching professionals. In addition, coefficients were further measured to determine the effect of each of the factors on work stress. The results revealed that conscientiousness has a negative but no significant impact on work stress ($B = -0.007$, $t = -0.115$, $p = 0.908$). On the other hand, work stress is negatively and significantly impacted by sportsmanship ($B = -0.509$, $t = -8.219$, $p< 0.001$). The amount of standard deviation unit of change in the WS for each standard deviation unit of change in the OCB is known as the standardized beta coefficient. The standardized beta coefficient of -0.509 for the sportsmanship dimension in table 21.1 indicates that the WS will decrease by 0.509 (50.9 percent) of one standard deviation unit for each standard deviation unit change in the OCB - sportsmanship. In addition,

the unstandardized beta coefficient for sportsmanship suggest that the unit change in the independent variable OCB (sportsmanship) brings a -4.235 unit change in the dependent variable WS. Therefore, there is a negative and substantial correlation between sportsmanship and work stress in the OCB dimension.

The regression equation

Work stress = f (sportsmanship), where f > 0

Work stress (Y) = 19.798 – 4.253 Sportsmanship

The model presented above indicates that work stress and the OCB dimension of sportsmanship have a negative, substantial causal relationship. This means that the teaching professionals who reflect sportsmanship characteristics tend to experience less work stress. In addition, among the two OCB dimensions, the dimension sportsmanship happens to be the stronger predictor than conscientiousness.

Summary of the Chapter

The chapter provides an in-depth data analysis, starting with the demographic profile of teaching professionals, including gender, age, education level, and rank. Descriptive statistics, encompassing mean, standard deviation, skewness, and kurtosis, are utilized for dependent and independent variables. The chapter employs hypothesis tests, exploring correlation, regression, t-tests, and ANOVA. Gender disparity is evident among teaching professionals, emphasizing the need for diversity considerations. The age distribution highlights a significant presence in the 35-44 age group. The dominance of male teaching professionals is observed across different educational levels and ranks. Rigorous safety checks precede correlation and regression analyses, ensuring data reliability and validity. Outlier examinations, checks for normal distribution, and assessments for linearity and homoscedasticity, lays the groundwork for subsequent analyses.

The study focuses on the relationship between Organizational Citizenship Behaviors (OCBs) and work stress (WS) among teaching professionals, with various hypotheses tested. There are no appreciable differences in OCB and WS between male and female teaching professionals, according to Hypothesis 1's analysis of gender disparities. Hypotheses 2, 3, and 4 scrutinize management rank, age groups, and educational levels, demonstrating mixed results with notable differences in work stress among rank and educational levels of teaching professionals. In summary, the findings suggest that positive behaviors at work, particularly sportsmanship, are

linked to lower stress levels among teaching professionals, although the relationships are intricate and subject to various influencing factors. Hypothesis 5 posits a negative relationship between OCB and WS, revealing a weak negative correlation ($r = -0.104$, $p = 0.066$). Hypothesis 6 explores the impact of OCB dimensions on WS components, showing a significant negative influence of sportsmanship on overall work stress of teaching professionals.

CHAPTER V
FINDINGS AND DISCUSSION

The study examines the relationship between OCB and Work Stress (WS) among teaching professionals at Kathmandu University. Findings indicate a negative relationship between OCBs and WS. Social exchange theory suggests OCB leads to positive responses, reducing stress. Role theory suggests certain OCB traits may interact with job demands, increasing stress. Conservation of resources theory suggests that if there is a fear of loss of resources without anything in return, this may lead to stress. Gender, age, and educational level showed mixed results in their impact on OCB and WS among teaching professionals, calling for further research to understand their complexities. The study concludes that Sportsmanship is a crucial OCB dimension in reducing workplace stress. Gender, age, and educational level showed mixed effects on OCB and WS, warranting further investigation. The study's implications highlight the importance of promoting OCB and understanding hierarchical positions, gender dynamics, and educational backgrounds in managing stress among teaching professionals. Limitations include the need for larger and more representative samples, comparative studies, and exploring various aspects of OCB and WS in education. Future research may investigate OCB's impact on job satisfaction, teacher retention, organizational performance, job stress, and the outcomes of the COVID-19 pandemic on educators.

Discussion on the Demographics of the Teaching Professionals at the University

This section discusses the demographic status of teaching professionals in terms of their gender, age, education, and organizational rank.

Gender Composition at the University

Starting with the composition of male and female teaching professionals, 71% were males and 29% were females out of the sample size of 214. Only 62 respondents are female. The highest number of female respondents is 29 and they are lecturers. This data also reveals more male teaching professionals than female teaching professionals at the university. According to Yamamoto et al. (2019), women in Nepal struggle to find regular work even when their education levels are equivalent to urban females and males. Moreover, rural female workers face significant wage discrimination, which hinders their chances of finding regular work. This research

adds to the information on gender wage gaps, focusing on regular and casual labor markets in urban or rural areas.

In a much recent study, Khatri (2023) underscores gender disparities within Nepalese private schools, noting that female employees arrive earlier and stay longer than males. Yet, they receive lower remuneration, miss out on better positions despite qualifications, and attribute these inequalities to societal gender roles and stereotypes rather than biological differences, highlighting the need to challenge ingrained expectations and reevaluate societal norms to address systemic gender discrimination in private school settings. Furthermore, according to Moreau (2020), gender inequalities in teaching result from various factors at different levels that work together in complicated ways. These factors include rules and expectations about how and when teaching happens (teaching cultures), personal backgrounds, life situations, access to resources, and power dynamics. In another study accompanied by Tašner et al. (2017) about the feminization of the teaching profession through a pilot study with 132 students, the study aims to identify factors that encourage young adults, especially young women, to pursue a career in teaching. The results confirm that women majoring in education perceive the profession as a vocation linked to caring, helping, and giving back. Work-life balance is also important for both genders.

School and Age Group Representation at the University

In addition, the majority of respondents represent the school of engineering, school of sciences, and school of medical sciences with 34.10, 25.20, and 23.40 percentages, respectively. Of all the teaching professionals included in this study, 50.5% belonged to the 35–44 age group and 24.80% to the 25–34 age group. The largest age group is individuals aged 35-44, comprising 50.50% of the sample. This indicates that the dataset is skewed towards this age range. Other age groups are represented as follows: 25-34 (24.80%), 45-54 (18.70%), 55 or over (4.70%), and less than 25 (1.40%). If we look into the classification of the age group, most fall into the category of Generation X, who were born between 1965 and 1979, and Millennials who were born between 1980 to 1994 (*Age Groups - Demographics - Research Guides at University of Southern California*, n.d.). Another study has categorized generations based on birth years: Baby Boomers (1943-1960), Generation X (1961-1981), Generation Y (1982-2004), and Generation Z (2005-2018) (Karashchuk et al., 2020). The Millennials, born between 1980 and 2001, are often Generation Y, embodying the era of globalization and technology where access to technology is

integral to their lives, particularly in business contexts, making them a subject of extensive contemporary research (Berkup, 2014). In this research study, the largest age group is individuals aged 35-44, comprising 50.50% of the sample. This age group can be considered as millennials based on the above age group guidelines. According to a recent study by Marrero Galván et al. (2023), millennial teachers are familiar with technology that is useful in teaching and learning; they even are available online for student support.

In conclusion, the age group representation at the university, particularly the dominance of Generation X and Millennials, along with their technological proficiency and adaptability, substantially impacts teaching, learning, and overall organizational dynamics within the educational setting. Understanding these generational dynamics and leveraging the strengths of each generation can contribute positively to the university's academic quality, student engagement, and organizational effectiveness.

Gender and Organizational Rank at the University

The data reveals a gender gap, with men making up the majority. Professors comprise around 11% of the workforce, where 89% of them are men. Comparably, 36% of associate professors are women, whereas 64% of men hold those positions. In all, 76% of assistant professors are male and 24% are female. Approximately 38% of professors are male, while 62% are female. As a result, compared to their male colleagues, there is a glaring underrepresentation of female professors and associate professors. The levels of educational achievement, as noted in Table 7, may be responsible for this discrepancy. Finally, in this study, just 16% of the 76 people with PhDs are female teachers, with 84% being men. A similar pattern can be observed in the overall Nepalese attaining higher education. In a study conducted by Karki and Karki (2020), which examines Nepal's educational attainment from a gender perspective, there exists a gender gap in the country's educational attainment. More females than males in Nepal complete lower secondary education, but their share of the total falls as education levels rise. In Nepal, about two-fifths of the literate population accomplished primary education, one-fifth accomplished lower secondary education, and just a small percentage (2.8%) of the population has achieved graduation and post-graduate education and above (1.0%). Compared to men, women's accomplishments appeared to be lower, particularly in higher education.

This disorder might make it harder for women to take advantage of society's many chances.

Gender and Educational Level at the University

The data indicates that males are more prevalent than females in all categories of academic degree holders. The most common degree among males is a PhD (64 people, 84%), followed by a Master's degree (71 people, 63%). The master's degree category has the largest percentage of female representation (41 persons, or 37%), followed by the bachelor's degree category (3 individuals, or 30%). This means that males have an overall higher representation across all academic degree categories.

The classification of teaching professionals varies at different educational institutions. While going through Boston University's Faculty Handbook – the Classification of Ranks and Titles for faculty appointments were assigned as Instructors, Assistant Professors, Associate Professors, and Professors (*Classification of Ranks and Titles | Faculty Handbook*, n.d.). The categorization or classification of ranks of teaching professionals at Boston University and Kathmandu University closely resemble to each other in terms of their naming.

In a similar context, Chanana (2022), reveals ongoing educational inequities for women in academia, with most in lower positions despite improved access; feminist scholars attribute this to gendered institutional structures. In India, corporate gender gaps are narrowing, unlike in Higher Education Institutions (HEIs). The University Grants Commission (UGC) launched a training program to enhance gender inclusivity in HEIs, fostering visible advancements.

Discussion on the Exploratory Hypothesis

The aim of this research project is to examine the connection between OCB and work stress among Kathmandu University teaching professionals.

The first hypothesis proposes a statistically significant difference in the OCB and WS between male and female teaching professionals. According to the OCB results, there are no appreciable variations in the scores of males and females.

There is a debate regarding the gender differences in exhibiting OCB, with some believing that women are more prone to engage in OCB, others claiming that men exhibit more OCB, and still others holding the belief that there is no difference between genders. Some studies suggest female teachers exhibit more helping behaviors, while male teachers engage in civic virtue behaviors (Farrell & Finkelstein,

2007; Kidder, 2002). However, others find no significant gender differences in OCBs (Feather & Rauter, 2004; Oplatka, 2009). Observers often expect behavior in line with gender stereotypes (Farrell & Finkelstein, 2007; Kidder, 2002), attributing men's OCBs to impression management (Farrell & Finkelstein, 2007). Principals and colleagues generally do not hold different expectations based on gender (Feather & Rauter, 2004; Oplatka, 2009). OCBs convey positive job satisfaction and organizational commitment (Feather & Rauter, 2004; Oplatka, 2009), but contract teachers may experience increased job insecurity. Lower work-family conflict and a stronger work-family culture predict higher OCBs (Bragger et al., 2005), and gender may moderate these relationships, though findings vary across studies. Furthermore, men tend to exhibit higher OCB in all aspects than women, according to an article that examined gender disparities in OCB in the private sector within the framework of Chinese culture (Gao, 2020). More specifically, in studies based on self-reported OCB, women tend to indicate they engage in more communal forms of OCB, such as altruism, compared to men, while men tend to report participating in more agentic forms of OCB, like sportsmanship, than women (Allen & Jang, 2016).

Finally, the third hypothesis was refuted by the study on OCB and work stress among male and female teaching professionals, which revealed no gender differences in OCB scores. The ongoing debate on gender disparities in OCB persists, with conflicting literature findings.

Similarly, there are no appreciable variations in the results between male and female respondents for Work Stress. In a critical review of the literature, it was found that a significant proportion of studies suggested that women stated greater levels of stress in contrast to men (Gyllensten & Palmer, 2005). Pervez and Hanif (2003) found that secondary school female teachers showed more stress but no difference for primary school teachers. According to a study conducted by Mahmood et al. (2022) among 700 teachers, the findings reveal no significant effect of gender on WS. Similarly, Witt and Lovrich (1988) found that female faculty reported greater stress and higher self-expectations. Slišković and Seršić (2011a) also found that female university teachers reported higher exposure to stressors. Eichinger (2000) found that social role orientation impacted stress levels for female but not male special education teachers. However, in contrast, another study concluded that male participants reported a greater perception of work stress than their female counterparts (Tokgöz & Önen, 2021). Similarly, the findings in an analysis indicated that men experience

greater levels of stress related to limitations within the organization when compared to women. This stress is caused by receiving incorrect instructions, not having access to necessary supplies and information to perform their work, and being interrupted by colleagues, identified as the most stressful conditions (Stafyla et al., 2013).

In conclusion, the present study investigated gender differences in Work Stress scores and found no significant variation between male and female participants where the total valid respondents of n = 214, a staggering 71% are males and 29% are females. The investigation into Work Stress (WS) among male and female teaching professionals revealed no statistically significant gender differences in stress levels, challenging prevailing literature suggesting varying stress experiences between genders. The literature review reflected contradictory findings, with some studies indicating higher stress levels among women while others reported greater stress among men.

According to the second hypothesis, teaching professionals at various ranks differ statistically significantly in their OCB and WS. The findings reveal a significant difference in OCB across teaching professionals when examining differences in OCB among teaching professionals at various levels ($F5, 208 = 3.043$, $p = 0.011$). The difference in mean scores between lecturers and teaching assistants is significant at the 0.05 level, according to post hoc comparisons using the Dunnett's T3 test. There were no appreciable differences between other categories of teaching professionals, though. Significant disparities in OCB were seen between educators at different professional ranks in a related study. In the same study, the OCB-I displayed by lecturers was significantly higher than that of associate professors (Dirican & Erdil, 2016b). A different study with 349 participants from Chinese businesses discovered that employee position plays a major role in OCB as an in-role orientation. Compared to departmental managers, senior leaders or general managers had a higher frequency of OCB, which was considered an indicator of being in their function (Wanxian & Weiwu, 2007). However, in a similar study conducted by Turnipseed and Rassuli (2005) comparing employee and manager perspectives on OCB and its link to performance across ranks found that higher performance ratings aligned with increased OCB levels, particularly with helping-related behavior performance in employees; managers rated lower than employees in OCB assessments, yet perceived a stronger correlation between OCB and performance compared to employees. In addition, in a study conducted by Abdul Malek and Hee Tie (2012) among 762

lecturers, the findings reveal that there exists a significant relationship ($r = 0.11$, $p<0.05$) between teachers' grades and OCB.

In conclusion, examining Organizational Citizenship Behaviors (OCB) among teaching professionals at different ranks indicate a significant variation in OCB scores, with lecturers and teaching assistants displaying notable differences. The findings reveal a significant difference between the mean scores of the lecturers ($M = 3.766$, $SD = 0.809$) and teaching assistants ($M = 1.960$, $SD = 0.959$). At the 0.05 level, the mean differences were significant. However, other categories of teaching professionals did not exhibit noticeable distinctions. The lecturers ($n = 73$) against a small sample size of teaching assistants ($n = 15$). In this context, Burns and Burns (2008), sample sizes of 30 or more are deemed sufficient for applying the central limit theorem, enabling inferences about the broader population from sample data by virtue of the sample mean converging towards the population mean and the standard error of the mean diminishing as sample size increases.

Similarly, the findings for work stress reveal a significant difference in work stress when examining the variations in work stress across teaching professionals at various ranks ($F5, 208 = 6.459$, $p < 0.001$). The mean scores of lecturers and teaching assistants, lecturers and faculty, associate professors and teaching assistants, assistant professors and teaching assistants, and professors and teaching assistants all show statistically significant variances. These discrepancies show that, at the 0.05 level, there are substantial disparities in these groups' work stress levels. There were no appreciable differences between other categories of teaching professionals, though. According to a study conducted by Slišković and Seršić (2011), among academic faculty, assistant professors, associate professors, and full professors faced higher levels of stress related to their work materials and organization, whereas assistants found their relationships with colleagues to be more stressful. Interestingly, full professors reported lower levels of work-related stress than associate professors, assistant professors, and assistants. A similar study conducted by Agai-Demjaha et al. (2015) among 300 teachers from 9 different elementary schools revealed that the lower-grade teachers perceived the workplace to be more stressful than perceived by upper-grade teachers. The test found a significant difference between the mean scores of the Professors ($M = 3.55$, $SD = 1.113$) and the teaching assistants ($M = 1.96$, $SD = 0.959$). Another significant difference was found between the mean scores of Associate Professors ($M = 3.5$, $SD = 0.946$) and the Teaching Assistant ($M = 1.96$,

SD = 0.959). Such a difference may have occurred due to Professors and Associate Professors being in a more responsible and accountable position than teaching assistants due to the multiple roles they perform as compared to the Teaching Assistants.

Teaching Assistants assist other teachers like Professors, Associate Professors, and Assistant Professors, meaning they get more direction from other teaching professionals rather than being responsible for others. Role theory can also be associated with these phenomena where the professors have multiple roles to perform than that of a Teaching Assistant. In addition, a significant difference is detected between the mean scores of Assistant Professors (M = 3.37, SD = 1.079) and the Teaching Assistants (M = 1.96, SD = 0.959). A similar explanation can be provided for the differences in the WS level between Assistant Professors and Teaching Assistants. However, in this case, the sample taken for Assistant Professor (n = 75) is higher than that of Teaching Assistant (n = 15). Thus, a wide sample gap may also have caused such a difference. Similarly, another significant difference is detected between the mean scores of Lecturers (M = 3.76, SD = 0.809) and the Teaching Assistants (M = 1.96, SD = 0.959). A similar explanation can be provided for the differences in the WS level between Lecturers and Teaching Assistants. However, in this case, the sample taken for Assistant Professors (n = 73) is higher than that of Teaching Assistants (n = 15). Thus, a wide sample gap may also have caused such a difference. Previous research supports these findings, as studies among academic faculty and teachers have demonstrated higher stress levels for certain positions, such as assistant professors and lower-grade teachers, and varying sources of stress, including work materials, organizational factors, and relationships with colleagues. These results suggest that factors such as rank can contribute to the divergent experiences of work stress among teaching professionals.

In conclusion, the examination of work stress among teaching professionals revealed significant variations across different ranks, with noteworthy disparities in stress levels between categories. The findings align with the tenets of Role Theory, as positions with multiple responsibilities, such as professors and associate professors, reported lower stress levels than teaching assistants. The observed differences also resonate with the Conservation of Resources (COR) Theory, highlighting the potential depletion of resources in roles with higher accountability.

According to the third hypothesis, teaching professionals across various age groups have statistically significant differences in OCB and WS. According to the hypothesis test, teaching professionals of various ages do not differ statistically significantly regarding OCB and WS. The results show that among teaching professionals in this study, age is not a major factor in influencing the levels of OCB and WS.

In a study of the differences in OCB levels among teaching professionals in age groups categorized as less than 25, 25-34, 35-44, 45-54, and 55 and over, the results of the analysis of variance showed that the OCB does not significantly differ between age groups ($F_{4, 209} = 0.616$, $p = 0.651$). A similar finding in a study conducted by Ucho and Atime (2013) that comprised 216 non-teaching employees showed that age did not have a notable impact on altruism, conscientiousness, sportsmanship, and civic virtue. However, in a study conducted by Abdul Malek and Hee Tie (2012) among 762 lecturers, the findings reveal a significant relationship between age and OCB. Similarly, the OCB-O of those over 41 was substantially greater than that of the 21–30 age range (Dirican & Erdil, 2016b). A similar study with 349 participants from Chinese businesses participated, and it was discovered that employee age significantly influences OCB as an in-role orientation. Regarding OCB in-role perception, age is the first antecedent that is positively connected; older employees rated OCB as in-role behavior more than younger employees did (Wanxian & Weiwu, 2007). Older employees may have more work experience and accumulated wisdom, leading to a greater understanding of the importance of organizational citizenship behaviors. They may exhibit greater emotional maturity and stability, contributing to more consistent and positive workplace behaviors.

In summary, examining Organizational Citizenship Behaviors (OCB) across different age groups among teaching professionals yielded mixed findings. Contrasting findings from earlier studies demonstrate the intricacy of age-related factors on OCB, even though the current study did not find any significant changes in OCB depending on age.

In a similar study on WS among the same age groups, the ANOVA table shows no significant differences in WS across age groups ($F_{4, 209} = 1.165$, $p = 0.327$). A similar finding in a similar study conducted by Agai-Demjaha et al. (2015) among 300 teachers from 9 different elementary schools revealed that 48.19% of teaching professionals under the age of 45 years perceived lower levels of stress, and

teachers above the age of 45 years who accounted for 42.4% perceived high levels of work stress. However, in a study conducted by K and Hassan (2018), it was discovered that teachers aged 31-50 experienced elevated stress levels compared to both younger (20-30 years) and older individuals (51-60 years), while also noting significant differences in stress levels among age groups 20-30, 30-40, and 40-50, with the highest stress reported in the 31-50 age range. Finally, according to X. Yang et al. (2009), it was discovered that older teachers were better able to handle stress than younger ones. When it came to managing stress, senior teachers fared better than their younger counterparts.

In conclusion, examining work stress (WS) across various age groups among teaching professionals exhibited diverse findings, emphasizing the intricate interplay between age and perceived stress. Although age-related differences in WS were not statistically significant in this investigation, contradictory findings from earlier studies highlight the complex nature of the connection.

According to the fourth hypothesis, teaching professionals at various educational levels differ statistically significantly in their OCB and WS. The results of the hypothesis test indicate that there are no statistically significant differences in OCB among teaching professionals with different educational backgrounds. However, there are discernible differences in WS between educational levels, and higher education is linked to higher levels of WS.

In a study of the differences in OCB levels among teaching professionals with educational levels categorized as Bachelor, Master, MPhil, and PhD, the ANOVA table reveals that there are no significant differences in OCB across different educational levels ($F3, 210 = 2.182$, $p = 0.091$). In a study conducted by Abdul Malek and Hee Tie (2012) among 762 lecturers, the findings reveal no significant relationship ($r = 0.03$, $p = 0.52$) between educational level of teaching professionals and their respective OCB. A study by Ali et al. (2021) among 290 teachers in Lahore (Pakistan) reveals that there exist no significant differences in the OCB perceived by teaching professionals based on their educational qualifications. However, Ahmet (2016) mentions that as the level of educational attainment goes up, the perception of organizational citizenship behavior among teachers declines. The ANOVA results show that the post-graduate and doctors' degrees score an average of 4.022 and 4.068, respectively. The same figures for four-year higher education or undergraduate and 2–3-year associate degree is 4.318 and 4.875, respectively. In a similar but contextually

different study conducted by Mayel et al. (2013) among 333 employees from selected hospitals in Tehran, the employees with higher academic qualifications displayed higher levels of OCB ($\alpha \leq 0.000$, $p<0.05$). Additionally, Klotz et al. (2018) mention that there is a positive relationship between higher education level and OCB; employees with higher education tend to display higher intensities of OCB at work.

In conclusion, the investigation into Organizational Citizenship Behaviors (OCB) across various educational levels among teaching professionals yielded mixed results. The absence of significant differences in OCB scores based on educational qualifications challenges the notion that higher academic attainment universally correlates with increased OCB. While some studies align with this finding, others, such as Ahmet (2016), propose a decline in OCB perception with higher educational levels. According to the Social Exchange Theory, the reciprocity of social interactions inside educational institutions may determine the relationship between OCB and educational levels. Moreover, highly educated people may view OCB as an investment in building resources for the future, according to the Conservation of Resources (COR) Theory, which could impact their participation in these behaviors.

In a similar study of the differences in WS among teaching professionals with educational levels categorized as Bachelor, Master, MPhil, and PhD, the analysis of variance shows significant differences in WS across different educational levels ($F3, 210 = 4.433$, $p = 0.005$). Furthermore, Levene's statistics based on the mean were determined to be negligible ($p = 0.175$), demonstrating that the equal variance condition was met. Tukey HSD post hoc tests were completed to find individual differences across groups. The test found significant differences in mean scores between graduate and undergraduate students and between undergraduate and PhD students at the 0.05 level. According to Brissie et al. (1988), one of the independent variables, the education level of the teachers did not make a significant contribution to the prediction of burnout in a regression analysis. Similarly, according to a study conducted by Mahmood et al., (2022) among 700 teachers, the findings reveal no significant effect of qualification on WS. A similar study conducted by Agai-Demjaha et al. (2015) among 300 teachers from 9 different elementary schools revealss a significant positive relation between the educational level of teachers and their level of education. To be specific, the higher the education level, the higher the work-related stress among teachers.

Examining Work Stress (WS) across different educational levels among teaching professionals presents intriguing insights. The significant differences in WS among teachers with diverse educational qualifications challenge uniform conclusions about the impact of higher academic attainment on work-related stress. The findings align with studies suggesting that educational levels may not significantly predict burnout, as indicated by Brissie et al. (1988). The Conservation of Resources (COR) Theory could shed light on these results, emphasizing that individuals perceive their resources, including education, differently, influencing the stress experienced.

The present study explored the differences in Work Stress (WS) levels among teaching professionals with different educational qualifications. The analysis of variance indicated significant variations in WS across educational levels, with post hoc tests revealing specific differences between undergraduate and graduate students and between undergraduate and PhD students. Such a difference may be related to role theory, where the higher the education of a teaching professional, the possibility of a higher rank increases, leading to larger roles and responsibilities and, in turn intensifying levels of WS. Nevertheless, contradictory results from other research imply that there is complexity in the relationship between educational background and WS in the teaching profession. While one study found no discernible association between WS and qualification, another revealed a favorable correlation between teachers' work-related stress and educational attainment. These contradicting findings emphasize the need for more investigation to understand how work stress and educational background interact in the teaching profession.

The fifth hypothesis proposes that there is a statistically positive significant relationship between OCB and WS among teaching professionals. The findings reveal that the teaching professionals at Kathmandu University reflect OCB at work, which does not cause them to work stress. In other words, teaching professionals who exhibit OCB do not exhibit work stress. This does not support the alternate hypothesis since there is no statistically positive significant relationship between OCB and WS among teaching professionals. In a variety of studies, it was found that OCB and Work Stress have a negative and significant relationship (Jain et al., 2013; Karabatak et al., 2018; Sang Putu Krisna Adhi Pranata et al., 2020; Tziner & Sharoni, 2014). Similarly, Amin et al. (2020) found that job stress negatively impacted OCBs among university teachers in Bangladesh. Hussain (2020) had similar findings, showing that OCBs enabled teachers in Pakistan to build better interpersonal relationships and cope

with occupational stress. However, while navigating through the findings in various kind of literature, Bolino and Turnley, (2003) claim that employee conscientiousness (one of the OCB dimensions) is positively associated with role overload, job stress and work-family conflict. Similarly, Somech and Drach-Zahavy, (2013) disclose the findings from a sample of 457 employees working in different organizations. Furthermore, the findings show a strong positive correlation between OCB and employees' stress levels. In addition, Somech (2016), in her research work including 483 Israeli teachers, reveals that teachers' OCB has contributed to work overload, role ambiguity, and role conflict and these factors collectively contribute to strain among teachers. Moreover, Adriatico et al. (2020) discovered no connection between occupational stress and OCB among Philippine high school teachers. Somech (2016) found that OCBs directed at the organization (OCBO) increased role stressors like overload and ambiguity for Israeli teachers, increasing strain. Hannam and Jimmieson (2002) proposed that while OCBs increased exhaustion for primary school teachers in Australia, they also increased feelings of accomplishment and work identification, preventing full burnout.

According to the findings, teaching professionals at Kathmandu University exhibit OCB at work, which does not cause them to work stress. This indicates that teaching professionals who engage in OCB are less expected to experience work stress. This result is consistent with earlier research demonstrating a negative correlation between OCB and occupational stress.

This link can be explained by the social exchange theory. According to social exchange theory, people engage in social interactions and relationships with the expectation of receiving rewards and benefits in common. Employees in the workplace participate in extracurricular and non-compliant behavior (OCB) in exchange for various social and psychological benefits from their employer and coworkers. Teaching professionals who exhibit OCB may receive positive responses from their colleagues and supervisors, such as recognition, appreciation, and support. These positive responses can enhance their sense of belonging, job satisfaction, and well-being. Since they feel that their workplace is encouraging and meets their requirements, they are, therefore, less likely to feel stressed at work. This aligns with the finding that teaching professionals who engage in OCB do not exhibit work stress. This finding also confirms that the teaching professionals at Kathmandu University do

not experience fear or threat of losing resources, as mentioned in the conservation of resources theory.

Finally, the discussion highlights the need to safeguard and nurture resources to cope with stressors, as COR Theory emphasizes. The positive aspects of OCB, such as reciprocity, social support, acknowledgment, or future prospects, may act as resources that individuals aim to acquire and conserve. These resources, gained through engaging in positive behaviors at work, contribute to the capability of handling stressful situations.

In conclusion, teaching staff members at Kathmandu University who demonstrate OCB do not feel stressed at work, consistent with other research that indicates an antagonistic link between OCB and stress at work. This is explained by social exchange theory, which contends that practicing OCB generates supportive reactions and environments at work. Additionally, the Conservation of Resources (COR) Theory emphasizes the need to safeguard positive aspects of OCB as resources, enhancing individuals' ability to handle stressful situations.

Finally, the sixth hypothesis proposes that there is a statistically significant effect of OCB and WS among teaching professionals. The findings reveal that the OCB dimensions and Work Stress components have a very low correlation with one another. Thus, only one OCB dimension, sportsmanship has a moderate correlation with work stress, and the same is reflected in the regression equation:

Work stress (Y) = 19.798 - 8.219 Sportsmanship

This suggests that sportsmanship has a significant negative impact on work stress, which accepts the set alternate hypothesis that suggests there is a significant effect of OCB on WS among teaching professionals. In context to this finding, research outcomes reveal different results. In line with the findings in this study, OCBs reduce teacher stress. Amin et al. (2020) found that OCBs had a negative relationship with work stress among university instructors in Bangladesh. Adriatico et al. (2020) discovered a similar negative connection between OCBs and occupational stress in Filipino high school teachers. Similarly, according to Demerouti and Cropanzano (2017), practicing good sportsmanship, such as avoiding unnecessary complaints and criticism, can enhance work engagement and positive emotions. A study involving 112 workers discovered that while strong sportsmanship mitigated the consequences of everyday unfavorable experiences, low sportsmanship increased their negative effects. Fostering a culture of sportsmanship at work can help lessen the

negative impacts of ongoing stress. Negative events in the workplace contribute significantly to occupational stress, affecting employees' performance and well-being. Furthermore, Nna (2021) mentions that a supportive work environment is needed to promote employee sportsmanship. Factors like physical workplace settings, job descriptions, workplace culture, and the market condition affect the work environment. To boost sportsmanship, organizations should ensure timely salary payments, include rewards for sportsmanship in policies, and prioritize employee training. Thus, at the institution under study, attention should be given to ensuring and promoting healthy sportsmanship practices.

However, there is research that suggests the reverse. (Somech, 2016) asserts that OCBs actually made Israeli instructors more stressed out by increasing duty overload, role ambiguity, and role conflict. For teachers with little job autonomy, there was a particularly substantial correlation between OCBs and role pressures. Finally, Feather and Rauter (2004) also discovered that OCBs were positively correlated with Australian contract teachers' perceptions of job insecurity-related stress.

In conclusion, the study on the influence of Organizational Citizenship Behaviors (OCB) on work stress among teaching professionals reveals a nuanced relationship. In sync with the alternate hypothesis, the findings indicate a significant negative impact of sportsmanship, an OCB dimension, on work stress, suggesting OCBs generally reduce stress among educators. The Social Exchange Theory suggests that teachers engage in OCB as reciprocal gestures within the educational institution, fostering positive interactions and reducing work stress. The Conservation of Resources (COR) Theory emphasizes that engaging in OCB may deplete resources, contributing to heightened stress, but positive outcomes like social support can act as stress-buffering resources. The multifaceted relationship between OCB dimensions and work stress is influenced by social exchanges, and resource conservation.

CHAPTER VI
CONCLUSION AND IMPLICATIONS

This study investigates the association between work stress (WS) and organizational citizenship behaviors (OCB) among teaching professionals, highlighting specific OCB traits and WS levels common in this context. It explores how gender, rank, age, and education influence OCB and WS levels. Results indicate an inverse relationship between OCB and WS among Kathmandu University teaching professionals, refuting a statistically significant positive association. Future research should focus on specific OCB characteristics and other factors affecting the OCB-WS relationship in teaching professionals to deepen understanding.

Conclusion on OCB, WS and Their Interaction

In regards to the gender, it was found that the proportion of male is high when compared to that of female teaching professionals. However, if looked into the levels of OCB and WS, the teaching professionals whether male or female do not perceive OCB nor WS differently. Thus, in this study, gender does not influence how teachers perceive OCB and WS.

Similarly, the rank of teaching professionals is another factor undertaken to study the perceived OCB and WS among teaching professionals. To reiterate, these ranks include professor, associate professor, assistant professor, lecturer, teaching assistant and faculty member. Significant differences in OCB emerge between lecturers and teaching assistants, while variations in WS were observed across different ranks within the teaching profession. The highest level of work stress was reflected among lecturers and the lowest among teaching assistant. Teaching assistants are there in the academic department to mostly assist other teaching professionals in the higher rank and also to learn. These are individuals who further launch themselves towards higher education and thus less stressed. And the rank lecturer is mostly an entry level teaching rank where there is the obligation to perform better and grow to higher ranks like that of an assistant professor, associate professor and professor. Thus, it is evident that the rank of teaching professional influence their level of WS.

Furthermore, the age groups fall under the range less than 25 years, 25 to 34 years, 35 to 44 years, 45 to 54 years and 55 and above years. Majority of the teaching

professionals fall within the age group of 35 to 44 years in this study. The perception of OCB and WS among teaching professionals is not affected by their age. In other words, the age of teachers at KU does not influence the way they perceive OCB and WS. Thus, regardless of their age, teachers at KU perceive OCB and WS similarly.

The final demographic variable in this study, the educational level of teaching professionals does not influence their perception of OCB. Teachers perform voluntary act irrespective of their educational levels. However, substantial Work Stress (WS) disparities exist among teaching professionals with varying educational backgrounds. Teachers with a master's degree perceive more WS than teachers with a bachelor degree and teachers with a PhD perceive more WS than teachers with master's degree. This raises the possibility of a link between more educational attainment and stress at work.

It is clear from the results and discussion that teaching professionals at Kathmandu University engage in OCB at work. Teachers at KU perform OCB and their engagement with OCB related activities reduces their level of WS. In other words, the more the teachers engage themselves into OCB the less stress they experience. Thus, in order to reduce any possible WS among teaching professionals, OCB related behavior can be encouraged or incorporated in the workplace culture. The social exchange theory further supports this outcome among teaching professionals at KU. Teaching professionals indulge themselves into OCB, like helping a colleague in work, attending meetings, promoting the institution, supporting student extracurricular activities etc. and gain social capital as a resource or an asset. Thus, when resources are gained, the stress is reduced.

Finally, the research question which explores how positive behaviors at work (OCB dimensions) impact the work stress experienced by teaching professionals, the study identifies the OCB dimension sportsmanship to help reduce WS. Sportsmanship refers to behavior whereby the teachers reflect tolerance towards difficulties and inconveniencies, performs without complaining about pity things and provides team support. In contrast, conscientiousness (e.g., abiding to organizational rules, being punctual and responsible) shows minimal to no effect on workplace stress. These findings underscore the crucial role of sportsmanship in helping teachers mitigate workplace stress. Cultivating a culture of sportsmanship and addressing relevant variables can potentially alleviate the negative consequences of everyday stress on teachers' performance and well-being.

Implication of the Study among Stakeholders

This section gives a sense of direction, and possible intervention and mostly appeals for additional study to the concerned stakeholders like future researchers, policy- makers, teachers, educational institutions/universities, and research funding bodies. The findings support our comprehension of the connection between OCB and Work Stress (WS) among teaching professionals at Kathmandu University, with a population of 461 teaching professionals. Implications for the different stakeholders are discussed below.

Policy Makers

The study also highlights the significance of the OCB dimension of sportsmanship in influencing work stress among teaching professionals. A wide disparity between the gender composition is highlighted in the discussed demographics of teaching professionals. This disparity requires the special attention of the human resource department of the university, and it is recommended that the university introduce gender-based diversity among the teaching professionals. In addition, the finding suggests that promoting sportsmanship behaviors can play a vital role in minimizing teacher workplace stress. This is the outcome of a study at Kathmandu University only. However, policymakers like the University Grants Commission, Nepal, Ministry of Science and Education, different universities, both public and private educational institutions, and their respective stakeholders, especially teaching professionals, can develop or recommend policies that facilitate OCB and reduce Work Stress covering the entire country. With such a representation, a robust policy can be formulated. In addition, schools and departments within a university can facilitate departmental practices to motivate OCB and reduce WS aptly through department heads and school deans. Furthermore, policymakers can specifically look into OCB and WS from the perspective of organizational hierarchy, rank, or position. Such an implication arises due to the differences in OCB and WS among teaching professionals at different organizational positions or ranks in this study. Finally, while going through the laws and acts at the university, there is no explicit mention of OCB and WS. The policy makers at Kathmandu University may review their policies about OCB and WS to foster OCB related behaviors and policies and practices that help reduce work stress among teaching professionals. Thus, there seems to be a study gap in the acts and laws related to promoting OCB and reducing WS among teaching professionals.

Educational Institutions

This study's research implications emphasize the importance of fostering OCB behaviors, particularly sportsmanship, to mitigate work stress among teaching professionals. In line with this study, educational institutions need to acknowledge the need for a comprehensive understanding of OCB and WS in the teaching profession and encourage the implementation of strategies to support teachers. Educational institutions should look into their institution specific OCB dimension(s) and stressors that cause WS and develop strategies to support teachers. Similarly, organizations that support research can concentrate their funds on similarly defined fields that investigate how job stress affects teacher performance and how workload functions as a mediator in OCB and WS. Finally, it is also important that educational institutions check on their gender disparity. Such disparity requires a special attention of the human resource department of the educational institutions and it is recommended that these educational institutions introduce a gender-based diversity among the teaching professionals.

Teaching Professionals

The study's implications for teaching professionals emphasize the pivotal role of OCB in mitigating Work Stress (WS). Highlighting a negative correlation between OCB and WS, educators are encouraged to actively foster a culture of OCB, particularly through behaviors like sportsmanship, to reduce work-related stress. Acknowledging the significance of sportsmanship in influencing work stress, teachers are urged to incorporate such behaviors into daily routines for a healthier work environment. Contextual considerations prompt educators to be mindful of differences in pay, position, gender, and workload between university and private educational institutions, tailoring their approaches to OCB and stress management accordingly.

In addition, encouraging and allowing teachers to share experiences related to workload, organizational hierarchy, and gender dynamics, contributes to a nuanced understanding of factors influencing OCB and WS. Teachers are positioned as advocates for policy development at institutional and national levels, collaborating with policymakers to establish supportive policies that address work stress. Furthermore, promoting self-reflection on personal OCB behaviors with an emphasis on practices fostering a positive workplace culture and collaboration. Finally, continuous professional development can be highlighted to inform educators about

research findings and effective stress management strategies, empowering them to contribute to a positive work culture. These implications offer actionable steps for teaching professionals to create a conducive work environment and effectively administer stress.

Future Researchers

The results corroborate other studies that found an inverse relationship between OCB and WS. This suggests encouraging an OCB culture at work may help teachers feel less stressed about their jobs. There are comparable studies, though, with different results, namely that OCB and work stress (WS) are positively correlated. These variations in findings demand the role of future researchers. In Nepal, there are 11 universities that employ over 9000 educators, with the largest group of instructors, numbering 7592, located at Tribhuvan University (University Grants Commission Nepal, 2018) and approximately 1440 educational institutions with affiliations from different universities (Ghimire, 2023). With an extensive sample size, future researchers can conduct countrywide research about teachers' OCB and WS with variations in their context. In addition, the context of teaching professionals at the universities and private educational institutions differs, for instance, in matters of pay, grade/position, gender, roles, workload and other variables that may introduce differences in their perceived OCB and WS. So, a comparative study on OCB and WS can be conducted between the teaching professionals at university and private educational institutions. Furthermore, one important aspect is that work overload can be introduced as a mediating variable in the study which may increase OCB related activities among teaching professionals which finally causes work stress. Lastly, studies can be conducted on the relationship between OCB and job happiness, OCB and teacher retention, and OCB and organizational success, including the reputation of the school and student accomplishment, as well as the effect of COVID-19 on various stressors and perceived work stress in the education sector.

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ANNEX

Annex 1: Questionnaire

I am already grateful for the time and input that you have dedicated while responding to this questionnaire on the topic: **"*Relational Study of Organizational Citizenship Behavior (OCB) and Work Stress among teaching professionals at Kathmandu University*"**. This questionnaire-based inquiry will lead to the completion of my MPhil dissertation at Kathmandu University School of Education.

Your insights and response will help us better understand the practice of OCB, Work Stress and their relationship among the teaching professionals at Kathmandu University. An approximate time of 30 minutes is considered sufficient to complete the questionnaire, however flexibility is adopted in case if you require some extra time.

In order to navigate through the questionnaire, **Section 1** consists of your personal information, and **Section 2** consists of the dimensions of OCB, and the signs or the outcomes of Work Stress. Your personal information and opinion in these two sections will be of great value in this research study. Also, please feel comfortable to inquire on any matters related to this research study. I can be contacted at prabhat_mphilel20@kusoed.edu.np or in my mobile # +977 - 9851164702.

Section 1

A. Demographic Details [Please (√) mark the appropriate options]

1. **Gender:** a. Male…….. b. Female……. c. Others……...
2. **Age:** a. Less than 25….. b. 25-34…..... c. 35-44……. d. 45-54…… e. 55 or over……
3. **Marital Status:** a. Married……. b. Single…….
4. **Children:** a. None……. b. One……. c. Two…… d. Three or more…….
5. **Teaching Experience:** a. Less than a Year…… b. 1-5 Years……. c. More than 5 Years……
6. **Highest Level of Education:** a. Bachelors……b. Masters……. c. M.Phil.…… d. Ph.D.…...
7. **Job Type:** a. Permanent……. b. Contractual……

8. Job Hours: a. Full-Time……b. Part-Time…….

Section 2

B. OCB Dimensions

In the list of questions below, there are 20 items that describes the display of OCBs. You are to signpost (√) objectively whether the statements fall in the range of Almost Never True (1) to Almost Always True (7) to your own practice or display of OCBs in your job.

Based on the following scale below, put a tick mark on the statement appropriate to you.

1	2	3	4	5	6	7
Almost Never True	Usually Not True	Rarely True	Occasionally True	Often True	Usually True	Almost Always Tru

Items	1	2	3	4	5	6	
1. I help others who have heavy workloads.							
2. I help others who have been absent.							
3. I willingly give my time to help others who have work related problems.							
4. I help orient new people even though it is not required.							
5. I consult with other individuals who might be affected by my actions or decisions.							
6. I do not abuse the rights of others.							
7. I take steps to prevent problems with other workers.							
8. I inform the concerned individuals before taking any important actions.							
9. A lot of my time is consumed while complaining about unimportant matters.							
10. I tend to make problems bigger than they are.							
11. I constantly talk about my wanting to quit this job.							
12. I always focus on what's wrong with my situation, rather than the positive side of it.							
13. I am always punctual.							
14. I never take long lunches or breaks.							
15. I do not take extra breaks							
16. I obey company rules, regulations and procedures even when no one is watching.							
17. I keep myself well-informed of changes in the organization.							
18. I attend functions that are not mandatory, but that helps the organization image.							
19. I attend and participate in meetings regarding the organization.							
20. I 'keep up' with developments in the organization.							

C. Work Stress

In the list of questions below, there are 11 items that describe the signs/outcomes of Work Stress. You are to signpost (√) objectively whether the statements fall in the range of Almost Never True (1) to Almost Always True (7) to the signs or outcomes of Work Stress that you may have experienced in your job.

Based on the following scale below, put a tick mark (√) on the statement appropriate to you.

1	2	3	4	5	6	7
Almost Never True	Usually Not True	Rarely True	Occasionally True	Often True	Usually True	Almost Always True

Items	1	2	3	4	5	6	7
21. I have often felt nervous as a result of my job.							
22. Working here makes it hard to spend enough time with my family.							
23. My job gets to me more than it should.							
24. There are lot of times when my job makes me anxious.							
25. Working here leaves little time for other activities.							
26. Sometimes when I think about my job I get a tight feeling in my chest.							
27. I feel guilty when I take time off from job.							
28. I am spending too much time at work.							
29. I have too much work and too little time to do it in.							
30. I feel like I never have a day off.							
31. Too many academicians at my level in the organization get burned out by job demands.							

Thank you for valuable time and input 😌

Annex 2: Reliability test based on a sample of 214

Scale: Reliability_OCB_Altruism

Reliability Statistics

Cronbach's Alpha	N of Items
.752	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. I help others who have heavy workloads.	15.03	11.562	.586	.673
2. I help others who have been absent.	15.03	11.074	.610	.658
3. I willingly give my time to help others who have work related problems.	14.82	12.732	.559	.693
4. I help orient new people even though it is not required.	15.36	12.202	.452	.751

Scale: Reliability_OCB_Courtesy

Reliability Statistics

Cronbach's Alpha	N of Items
.735	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
5. I consult with other individuals who might be affected by my actions or decisions.	17.73	7.793	.449	.723
6. I do not abuse the rights of others.	16.76	7.096	.573	.647
7. I take steps to prevent problems with other workers.	17.18	7.959	.551	.663
8. I inform the concerned individuals before taking any important actions.	17.05	8.058	.546	.666

Scale: Reliability_OCB_Sportsmanship

Reliability Statistics

Cronbach's Alpha	N of Items
.701	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
9. Reverse_A lot of my time is consumed while complaining about unimportant matters.	16.73	11.117	.418	.648
10. Reverse_I tend to make problems bigger than they are.	16.06	11.334	.544	.683
11. Reverse_I constantly talk about my wanting to quit this job.	16.18	12.691	.379	.689
12. Reverse_I always focus on what's wrong with my situation, rather than the positive side of it.	16.80	12.149	.337	.653

Scale: Reliability_OCB_Conscientiousness

Reliability Statistics

Cronbach's Alpha	N of Items
.735	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
13. I am always punctual to my classroom/laboratory.	17.05	10.875	.483	.701
14. I never take long lunch hours.	17.57	8.443	.577	.646
15. I do not take extra breaks.	17.66	8.705	.543	.669
16. I obey university rules, regulations and procedures.	16.76	10.711	.536	.677

Scale: Reliability_OCB_Civic Virtue

Reliability Statistics

Cronbach's Alpha	N of Items
.787	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
17. I keep myself well-informed of changes in the university.	16.34	10.479	.490	.783
18. I attend functions that are not mandatory, but that helps the university boost its image.	16.93	8.764	.542	.772
19. I attend and participate in meetings regarding the university.	16.26	8.755	.680	.688
20. I 'keep up' with developments in the university.	16.17	9.540	.701	.689

Scale: Reliability_Work Stress_Anxiety

Reliability Statistics

Cronbach's Alpha	N of Items
.825	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. I have often felt nervous as a result of my job.	13.08	30.378	.565	.808
3. My job makes me feel irritated.	13.72	29.752	.737	.761
4. There are lot of times when my job makes me anxious.	13.07	29.117	.734	.759
6. Sometimes when I think about my job, I experience a feeling of discomfort.	13.43	28.096	.712	.763
7. I feel guilty when I take time off from job.	12.47	33.189	.401	.854

Scale: Reliability_Work Stress_Time Stress

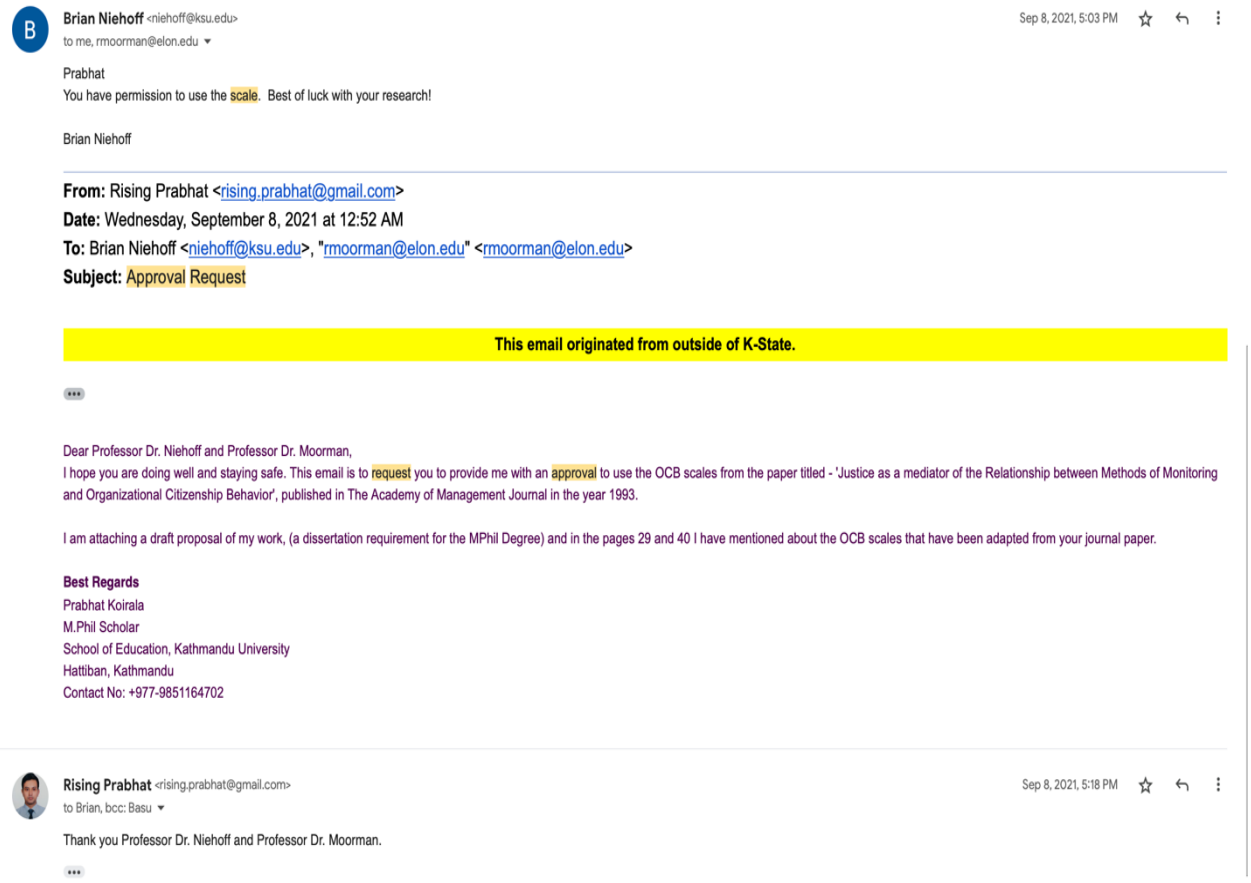
Reliability Statistics

Cronbach's Alpha	N of Items
.832	8

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
2. Working here makes it hard to spend enough time with my family.	27.89	67.129	.586	.809
5. Working here leaves little time for other activities.	27.57	67.917	.578	.810
8. I sometimes fear the telephone ringing at home because the call might be job related.	29.21	70.035	.396	.837
9. I am spending too much time at work.	27.66	69.360	.517	.818
10. I have too much work and too little time to do it in.	28.16	69.170	.602	.809
11. I feel like I never have a day off.	28.27	64.283	.650	.800
12. I spend a lot of time in the daily work routines which has blurred my long term career plan.	28.21	65.049	.666	.798
13. Too many employees in my organization get burned out by job demands.	28.62	69.120	.508	.819

Annex 3: Seeking for approval to use the OCB and WS scales



Brian Niehoff <niehoff@ksu.edu> Sep 8, 2021, 5:03 PM
to me, rmoorman@elon.edu

Prabhat
You have permission to use the scale. Best of luck with your research!

Brian Niehoff

From: Rising Prabhat <rising.prabhat@gmail.com>
Date: Wednesday, September 8, 2021 at 12:52 AM
To: Brian Niehoff <niehoff@ksu.edu>, "rmoorman@elon.edu" <rmoorman@elon.edu>
Subject: Approval Request

This email originated from outside of K-State.

Dear Professor Dr. Niehoff and Professor Dr. Moorman,
I hope you are doing well and staying safe. This email is to request you to provide me with an approval to use the OCB scales from the paper titled - 'Justice as a mediator of the Relationship between Methods of Monitoring and Organizational Citizenship Behavior', published in The Academy of Management Journal in the year 1993.

I am attaching a draft proposal of my work, (a dissertation requirement for the MPhil Degree) and in the pages 29 and 40 I have mentioned about the OCB scales that have been adapted from your journal paper.

Best Regards
Prabhat Koirala
M.Phil Scholar
School of Education, Kathmandu University
Hattiban, Kathmandu
Contact No: +977-9851164702

Rising Prabhat <rising.prabhat@gmail.com> Sep 8, 2021, 5:18 PM
to Brian, bcc: Basu

Thank you Professor Dr. Niehoff and Professor Dr. Moorman.

Annex 4: Data normality based on the skewness and kurtosis values/ Descriptive statistics for criterion and predictor variables

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
avealt	214	2.00	7.00	5.0199	1.10479	-.228	.166	-.582	.331
avecourt	214	6.25	7.00	6.6607	.18374	-.050	.166	-.494	.331
avesport	214	6.08	7.00	6.6203	.21418	.081	.166	-.836	.331
aveconsine	214	6.00	7.00	6.6750	.20910	-.072	.166	-.700	.331
avecvirtue	214	6.16	7.00	6.6145	.20071	.328	.166	-.464	.331
aveanxiety	214	1.00	7.00	3.2888	1.34275	.260	.166	-.737	.331
aveworkstress	214	1.00	7.00	4.0286	1.16210	-.140	.166	.006	.331
Valid N (listwise)	214								

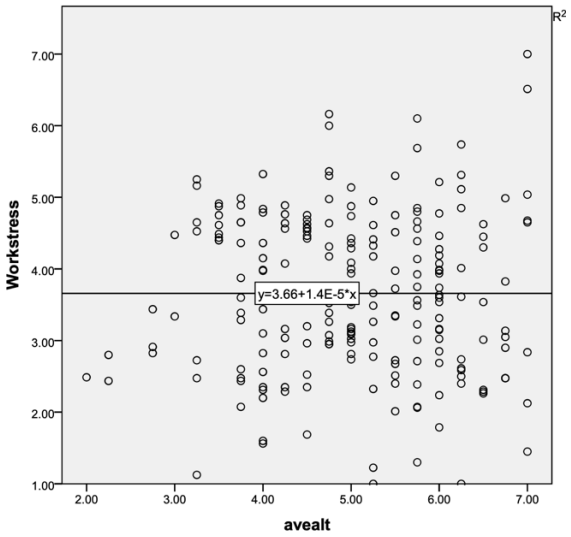
Annex 5: Descriptive Statistics to check univariate outliers

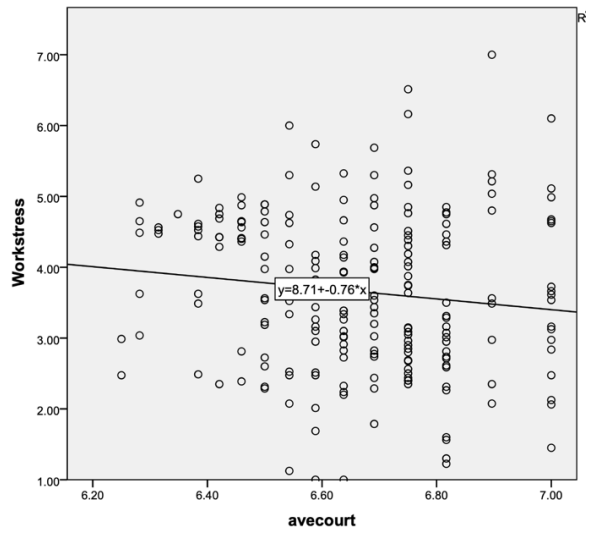
Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
1. I help others who have heavy workloads.	214	1	7	5.05	1.462
2. I help others who have been absent.	214	1	7	5.05	1.516
3. I willingly give my time to help others who have work related problems.	214	2	7	5.26	1.288
4. I help orient new people even though it is not required.	214	1	7	4.72	1.555
5. I consult with other individuals who might be affected by my actions or decisions.	214	1	7	5.17	1.276
6. I do not abuse the rights of others.	214	2	7	6.15	1.277
7. I take steps to prevent problems with other workers.	214	3	7	5.73	1.105

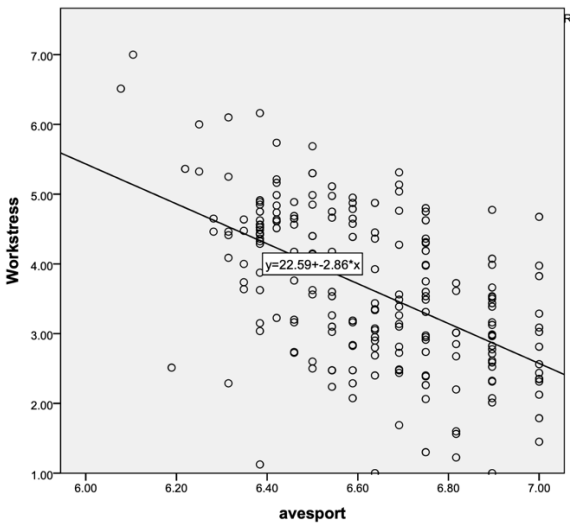
8. I inform the concerned individuals before taking any important actions.	214	2	7	5.86	1.089
9. Reverse_A lot of my time is consumed while complaining about unimportant matters.	214	1	7	5.19	1.699
10. Reverse_I tend to make problems bigger than they are.	214	1	7	5.86	1.449
11. Reverse_I constantly talk about my wanting to quit this job.	214	1	7	5.75	1.454
12. Reverse_I always focus on what's wrong with my situation, rather than the positive side of it.	214	1	7	5.12	1.649
13. I am always punctual to my classroom/laboratory.	214	1	7	5.96	1.142
14. I never take long lunch hours.	214	1	7	5.44	1.515
15. I do not take extra breaks.	214	1	7	5.36	1.509
16. I obey university rules, regulations and procedures.	214	1	7	6.26	1.107
17. I keep myself well-informed of changes in the university.	214	1	7	5.56	1.173
18. I attend functions that are not mandatory, but that helps the university boost its image.	214	1	7	4.97	1.46
19. I attend and participate in meetings regarding the university.	214	1	7	5.64	1.284
20. I 'keep up' with developments in the university.	214	2	7	5.73	1.11
1. I have often felt nervous as a result of my job.	214	1	7	3.36	1.825

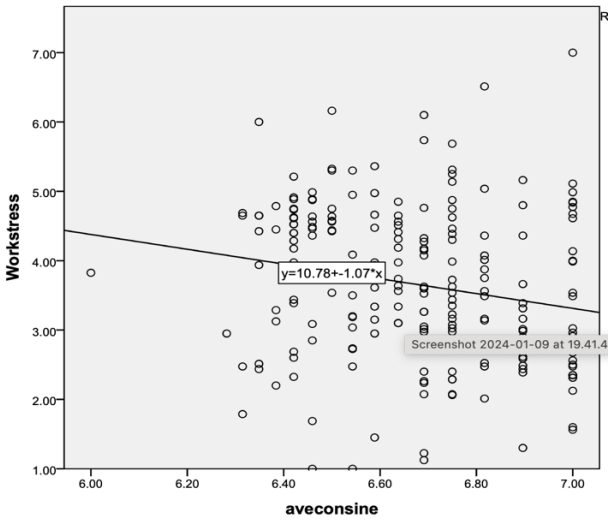
2. Working here makes it hard to spend enough time with my family.	214	1	7	4.34	1.706
3. My job makes me feel irritated.	214	1	7	2.72	1.59
4. There are lot of times when my job makes me anxious.	214	1	7	3.37	1.664
5. Working here leaves little time for other activities.	214	1	7	4.65	1.656
6. Sometimes when I think about my job, I experience a feeling of discomfort.	214	1	7	3.01	1.814
7. I feel guilty when I take time off from job.	214	1	7	3.97	1.841
8. I sometimes fear the telephone ringing at home because the call might be job related.	214	1	7	3.02	1.918
9. I am spending too much time at work.	214	1	7	4.57	1.662
10. I have too much work and too little time to do it in.	214	1	7	4.07	1.5
11. I feel like I never have a day off.	214	1	7	3.96	1.811
12. I spend a lot of time in the daily work routines which has blurred my long term career plan.	214	1	7	4.02	1.717
13. Too many employees in my organization get burned out by job demands.	214	1	7	3.61	1.704
Valid N (listwise)	214				

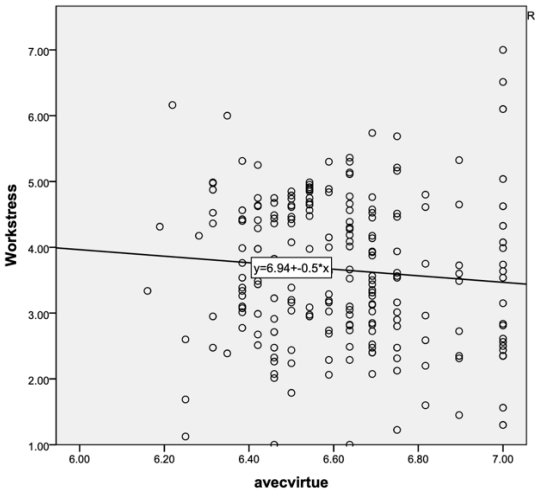
Annex 6: Linearity Scatter Plots, Residual Scatter Plots and Histograms

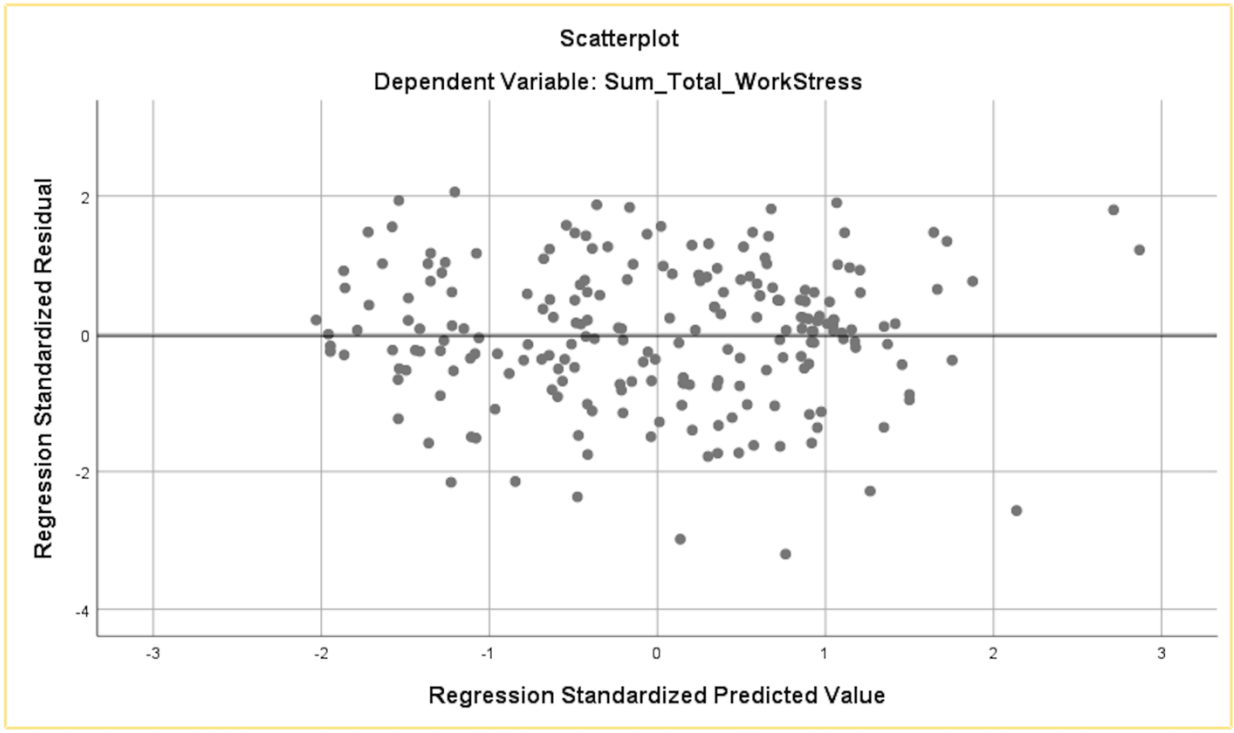


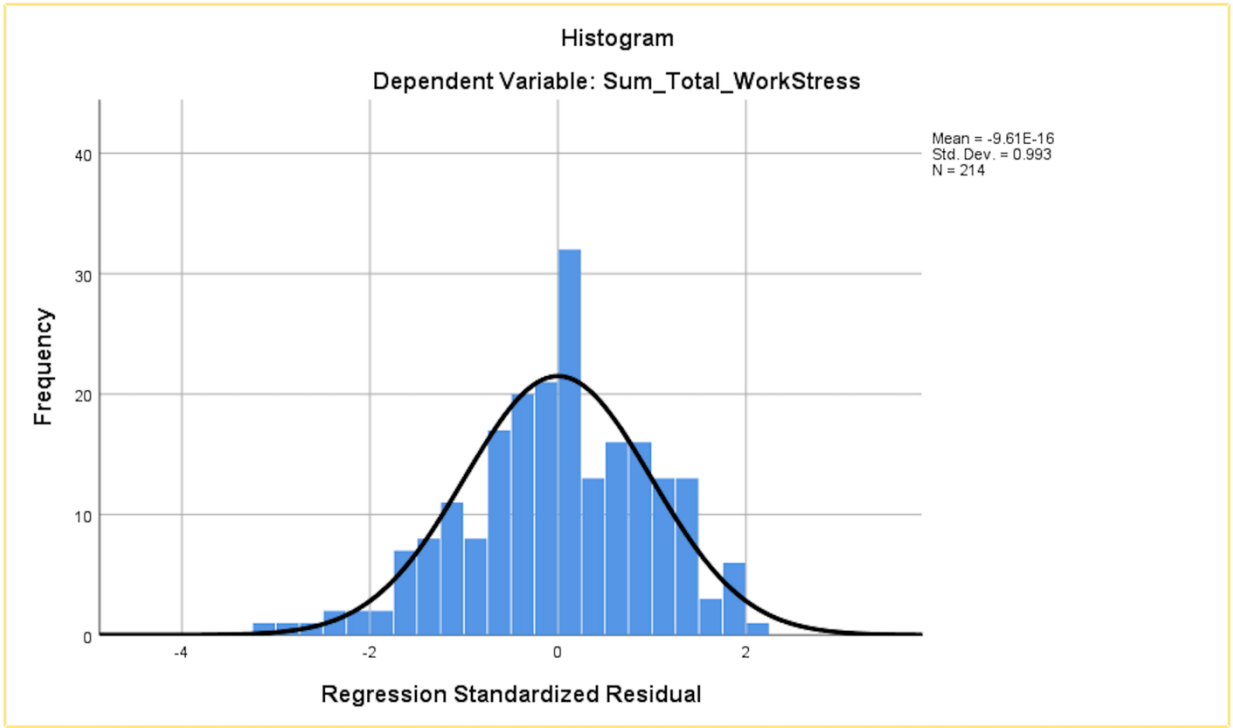



Workstress
avesport
y=22.59+-2.86*x
7.00
6.00
5.00
4.00
3.00
2.00
1.00
6.00
6.20
6.40
6.60
6.80
7.00


Workstress
aveconsine
y=10.78+-1.07*x
Screenshot 2024-01-09 at 19.41.4
7.00
6.00
5.00
4.00
3.00
2.00
1.00
6.00
6.20
6.40
6.60
6.80
7.00


Workstress
avecvirtue
y=6.94+-0.5*x
7.00
6.00
5.00
4.00
3.00
2.00
1.00
6.00
6.20
6.40
6.60
6.80
7.00





Annex 7: T-Test (OCB/ Work Stress and Gender)

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Total_Avg_OCB	Male	152	3.6045	.16911	.01372
	Female	62	3.6246	.14701	.01867

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Total_Avg_OCB	Equal variances assumed	2.004	.158	-.818	212	.207	.414	-.02010	.02457	-.06853	.02834
	Equal variances not assumed			-.868	129.387	.194	.387	-.02010	.02317	-.06594	.02574

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Total_Avg_WorkStress	Male	152	3.4643	1.06743	.08658
	Female	62	3.5069	.90782	.11529

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Total_Avg_WorkStress	Equal variances assumed	1.416	.235	-.276	212	.391	.783	-.04263	.15432	-.34682	.26157
	Equal variances not assumed			-.296	132.213	.384	.768	-.04263	.14418	-.32783	.24258

Annex 8: One Way ANOVA (OCB/WS among teaching professionals at different ranks)

Descriptives

Total_Avg_OCB

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Professor	18	3.6172	.16682	.03932	3.5343	3.7002	3.36	3.93
Associate Professor	28	3.6705	.15717	.02970	3.6095	3.7314	3.33	3.92
Assistant Professor	78	3.6170	.14541	.01646	3.5842	3.6498	3.27	3.91
Lecturer	77	3.5687	.17620	.02008	3.5288	3.6087	3.28	3.97
Teaching Assistant	9	3.7325	.09688	.03229	3.6580	3.8070	3.62	3.94
Faculty	4	3.5546	.14849	.07424	3.3183	3.7908	3.37	3.70
Total	214	3.6103	.16293	.01114	3.5884	3.6323	3.27	3.97

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Total_Avg_OCB	Based on Mean	2.834	5	208	.017
	Based on Median	2.637	5	208	.025
	Based on Median and with adjusted df	2.637	5	201.586	.025
	Based on trimmed mean	2.821	5	208	.017

ANOVA

Total_Avg_OCB

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.385	5	.077	3.043	.011
Within Groups	5.269	208	.025		
Total	5.654	213			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Total_Avg_OCB
Dunnett T3

(I) Level	(J) Level	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Professor	Associate Professor	-.05323	.04928	.989	-.2073	.1008
	Assistant Professor	.00024	.04263	1.000	-.1374	.1379
	Lecturer	.04847	.04415	.986	-.0924	.1893
	Teaching Assistant	-.11528	.05088	.352	-.2790	.0484
	Faculty	.06265	.08401	.998	-.3301	.4554
Associate Professor	Professor	.05323	.04928	.989	-.1008	.2073
	Assistant Professor	.05347	.03396	.830	-.0512	.1581
	Lecturer	.10170	.03585	.089	-.0079	.2113
	Teaching Assistant	-.06205	.04388	.903	-.2042	.0802
	Faculty	.11588	.07996	.842	-.2957	.5275
Assistant Professor	Professor	-.00024	.04263	1.000	-.1379	.1374
	Associate Professor	-.05347	.03396	.830	-.1581	.0512
	Lecturer	.04824	.02597	.626	-.0290	.1255
	Teaching Assistant	-.11551	.03625	.088	-.2427	.0117
	Faculty	.06241	.07605	.992	-.3811	.5059
Lecturer	Professor	-.04847	.04415	.986	-.1893	.0924
	Associate Professor	-.10170	.03585	.089	-.2113	.0079
	Assistant Professor	-.04824	.02597	.626	-.1255	.0290
	Teaching Assistant	-.16375*	.03803	.008	-.2932	-.0343
	Faculty	.01418	.07691	1.000	-.4208	.4492
Teaching Assistant	Professor	.11528	.05088	.352	-.0484	.2790
	Associate Professor	.06205	.04388	.903	-.0802	.2042
	Assistant Professor	.11551	.03625	.088	-.0117	.2427
	Lecturer	.16375*	.03803	.008	.0343	.2932
	Faculty	.17793	.08096	.501	-.2299	.5857
Faculty	Professor	-.06265	.08401	.998	-.4554	.3301
	Associate Professor	-.11588	.07996	.842	-.5275	.2957
	Assistant Professor	-.06241	.07605	.992	-.5059	.3811
	Lecturer	-.01418	.07691	1.000	-.4492	.4208
	Teaching Assistant	-.17793	.08096	.501	-.5857	.2299

*. The mean difference is significant at the 0.05 level.

Descriptives

Total_Avg_WorkStress

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Professor	18	3.5516	1.11327	.26240	2.9980	4.1052	1.57	5.14
Associate Professor	28	3.5000	.94681	.17893	3.1329	3.8671	2.07	5.57
Assistant Professor	78	3.3745	1.07973	.12225	3.1311	3.6180	.93	6.50
Lecturer	77	3.7662	.80983	.09229	3.5824	3.9500	1.14	5.64
Teaching Assistant	9	1.9603	.95905	.31968	1.2231	2.6975	.93	4.07
Faculty	4	2.8036	.29952	.14976	2.3270	3.2802	2.36	3.00
Total	214	3.4766	1.02184	.06985	3.3389	3.6143	.93	6.50

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Total_Avg_WorkStress	Based on Mean	2.792	5	208	.018
	Based on Median	2.450	5	208	.035
	Based on Median and with adjusted df	2.450	5	199.790	.035
	Based on trimmed mean	2.790	5	208	.018

ANOVA

Total_Avg_WorkStress

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	29.892	5	5.978	6.459	<.001
Within Groups	192.511	208	.926		
Total	222.404	213			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Total_Avg_WorkStress

Dunnett T3

(I) Level	(J) Level	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Professor	Associate Professor	.05159	.31760	1.000	-.9469	1.0500
	Assistant Professor	.17705	.28948	1.000	-.7519	1.1060
	Lecturer	-.21465	.27816	1.000	-1.1208	.6915
	Teaching Assistant	1.59127*	.41359	.016	.2210	2.9616
	Faculty	.74802	.30213	.257	-.2517	1.7478
Associate Professor	Professor	-.05159	.31760	1.000	-1.0500	.9469
	Assistant Professor	.12546	.21671	1.000	-.5365	.7874
	Lecturer	-.26623	.20133	.945	-.8885	.3560
	Teaching Assistant	1.53968*	.36635	.013	.2681	2.8112
	Faculty	.69643	.23333	.115	-.1039	1.4967
Assistant Professor	Professor	-.17705	.28948	1.000	-1.1060	.7519
	Associate Professor	-.12546	.21671	1.000	-.7874	.5365
	Lecturer	-.39169	.15318	.158	-.8474	.0640
	Teaching Assistant	1.41422*	.34226	.023	.1690	2.6594
	Faculty	.57097	.19332	.173	-.1763	1.3182
Lecturer	Professor	.21465	.27816	1.000	-.6915	1.1208
	Associate Professor	.26623	.20133	.945	-.3560	.8885
	Assistant Professor	.39169	.15318	.158	-.0640	.8474
	Teaching Assistant	1.80592*	.33274	.005	.5641	3.0477
	Faculty	.96266*	.17591	.018	.1944	1.7309
Teaching Assistant	Professor	-1.59127*	.41359	.016	-2.9616	-.2210
	Associate Professor	-1.53968*	.36635	.013	-2.8112	-.2681
	Assistant Professor	-1.41422*	.34226	.023	-2.6594	-.1690
	Lecturer	-1.80592*	.33274	.005	-3.0477	-.5641
	Faculty	-.84325	.35302	.338	-2.1262	.4397
Faculty	Professor	-.74802	.30213	.257	-1.7478	.2517
	Associate Professor	-.69643	.23333	.115	-1.4967	.1039
	Assistant Professor	-.57097	.19332	.173	-1.3182	.1763
	Lecturer	-.96266*	.17591	.018	-1.7309	-.1944
	Teaching Assistant	.84325	.35302	.338	-.4397	2.1262

*. The mean difference is significant at the 0.05 level.

Annex 9: One Way ANOVA (OCB/WS among teaching professionals at different age groups)

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Total_Avg_OCB	Less than 25	3	3.5568	.19405	.11203	3.0748	4.0389	3.34	3.71
	25-34	53	3.5997	.17282	.02374	3.5520	3.6473	3.29	3.97
	35-44	108	3.6115	.16617	.01599	3.5798	3.6432	3.27	3.94
	45-54	40	3.6074	.13768	.02177	3.5634	3.6515	3.34	3.90
	55 or over	10	3.6816	.17198	.05438	3.5586	3.8046	3.36	3.93
	Total	214	3.6103	.16293	.01114	3.5884	3.6323	3.27	3.97
Total_Avg_WorkStress	Less than 25	3	2.3810	1.40214	.80952	-1.1021	5.8641	1.57	4.00
	25-34	53	3.3639	.95455	.13112	3.1008	3.6270	.93	5.36
	35-44	108	3.5284	1.09843	.10570	3.3189	3.7380	.93	6.50
	45-54	40	3.5589	.89388	.14134	3.2731	3.8448	1.57	5.14
	55 or over	10	3.5143	.81497	.25772	2.9313	4.0973	2.64	4.86
	Total	214	3.4766	1.02184	.06985	3.3389	3.6143	.93	6.50

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Total_Avg_OCB	Based on Mean	1.404	4	209	.234
	Based on Median	1.230	4	209	.299
	Based on Median and with adjusted df	1.230	4	198.461	.299
	Based on trimmed mean	1.394	4	209	.237
Total_Avg_WorkStress	Based on Mean	1.648	4	209	.164
	Based on Median	1.505	4	209	.202
	Based on Median and with adjusted df	1.505	4	169.930	.203
	Based on trimmed mean	1.658	4	209	.161

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Total_Avg_OCB	Between Groups	.066	4	.016	.616	.651
	Within Groups	5.588	209	.027		
	Total	5.654	213			
Total_Avg_WorkStress	Between Groups	4.850	4	1.213	1.165	.327
	Within Groups	217.553	209	1.041		
	Total	222.404	213			

Annex 10: One Way ANOVA (OCB/WS among teaching professionals at different educational levels)

Descriptives

Total_Avg_OCB

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Bachelors	10	3.6942	.08550	.02704	3.6331	3.7554	3.51	3.80
Masters	112	3.5868	.17364	.01641	3.5543	3.6193	3.28	3.97
MPhil	16	3.6163	.15263	.03816	3.5349	3.6976	3.36	3.91
PhD	76	3.6327	.15150	.01738	3.5981	3.6673	3.27	3.93
Total	214	3.6103	.16293	.01114	3.5884	3.6323	3.27	3.97

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Total_Avg_OCB	Based on Mean	4.732	3	210	.003
	Based on Median	4.716	3	210	.003
	Based on Median and with adjusted df	4.716	3	207.140	.003
	Based on trimmed mean	4.815	3	210	.003

ANOVA

Total_Avg_OCB

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.171	3	.057	2.182	.091
Within Groups	5.483	210	.026		
Total	5.654	213			

Descriptives

Total_Avg_WorkStress

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Bachelors	10	2.5000	1.30280	.41198	1.5680	3.4320	.93	5.00
Masters	112	3.6040	.91166	.08614	3.4333	3.7747	1.07	5.71
MPhil	16	3.1339	1.11113	.27778	2.5418	3.7260	1.71	5.57
PhD	76	3.4897	1.05267	.12075	3.2491	3.7302	.93	6.50
Total	214	3.4766	1.02184	.06985	3.3389	3.6143	.93	6.50

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Total_Avg_WorkStress	Based on Mean	1.668	3	210	.175
	Based on Median	1.319	3	210	.269
	Based on Median and with adjusted df	1.319	3	198.801	.269
	Based on trimmed mean	1.597	3	210	.191

ANOVA

Total_Avg_WorkStress

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	13.246	3	4.415	4.433	.005
Within Groups	209.158	210	.996		
Total	222.404	213			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Total_Avg_WorkStress

Tukey HSD

(I) Highest Academic Degree	(J) Highest Academic Degree	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Bachelors	Masters	-1.10395*	.32938	.005	-1.9570	-.2509
	MPhil	-.63393	.40230	.395	-1.6758	.4079
	PhD	-.98966*	.33571	.019	-1.8591	-.1203
Masters	Bachelors	1.10395*	.32938	.005	.2509	1.9570
	MPhil	.47003	.26672	.295	-.2207	1.1608
	PhD	.11429	.14832	.868	-.2698	.4984
MPhil	Bachelors	.63393	.40230	.395	-.4079	1.6758
	Masters	-.47003	.26672	.295	-1.1608	.2207
	PhD	-.35573	.27451	.567	-1.0666	.3552
PhD	Bachelors	.98966*	.33571	.019	.1203	1.8591
	Masters	-.11429	.14832	.868	-.4984	.2698
	MPhil	.35573	.27451	.567	-.3552	1.0666

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

Total_Avg_WorkStress

Tukey HSD[a,b]

Highest Academic Degree	N	Subset for alpha = 0.05	
		1	2
Bachelors	10	2.5000	
MPhil	16	3.1339	3.1339
PhD	76		3.4897
Masters	112		3.6040
Sig.		.159	.409

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 21.670.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Annex 11: Correlation Analysis

Correlations

		Total_Avg_OCB	Total_Avg_WorkStress
Total_Avg_OCB	Pearson Correlation	1	-.104
	Sig. (1-tailed)		.066
	N	214	214
Total_Avg_WorkStress	Pearson Correlation	-.104	1
	Sig. (1-tailed)	.066	
	N	214	214

		avealt	avecourt	avesport	aveconsine	avecvirtue	aveanxiety	aveworkstress	total_stress
avealt	Pearson Correlation	1	.558**	.127*	.172**	.275**	-.084	.097	.000
	Sig. (1-tailed)		<.001	.032	.006	<.001	.111	.079	.500
	N	214	214	214	214	214	214	214	214
avecourt	Pearson Correlation	.558**	1	.345**	.372**	.400**	-.206**	-.002	-.125*
	Sig. (1-tailed)	<.001		<.001	<.001	<.001	.001	.491	.034
	N	214	214	214	214	214	214	214	214
avesport	Pearson Correlation	.127*	.345**	1	.298**	.186**	-.616**	-.342**	-.549**
	Sig. (1-tailed)	.032	<.001		<.001	.003	<.001	<.001	<.001
	N	214	214	214	214	214	214	214	214
aveconsine	Pearson Correlation	.172**	.372**	.298**	1	.383**	-.321**	-.013	-.200**
	Sig. (1-tailed)	.006	<.001	<.001		<.001	<.001	.425	.002
	N	214	214	214	214	214	214	214	214
avecvirtue	Pearson Correlation	.275**	.400**	.186**	.383**	1	-.166**	.020	-.089
	Sig. (1-tailed)	<.001	<.001	.003	<.001		.008	.383	.097
	N	214	214	214	214	214	214	214	214
aveanxiety	Pearson Correlation	-.084	-.206**	-.616**	-.321**	-.166**	1	.586**	.907**
	Sig. (1-tailed)	.111	.001	<.001	<.001	.008		<.001	<.001
	N	214	214	214	214	214	214	214	214
aveworkstress	Pearson Correlation	.097	-.002	-.342**	-.013	.020	.586**	1	.873**
	Sig. (1-tailed)	.079	.491	<.001	.425	.383	<.001		<.001
	N	214	214	214	214	214	214	214	214
total_stress	Pearson Correlation	.000	-.125*	-.549**	-.200**	-.089	.907**	.873**	1
	Sig. (1-tailed)	.500	.034	<.001	.002	.097	<.001	<.001	
	N	214	214	214	214	214	214	214	214

**. Correlation is significant at the 0.01 level (1-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

Annex 12: Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Avg_Conscientiousness, Avg_Sportsmanship[b]	.	Enter

a. Dependent Variable: Total_Avg_WorkStress

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.512[a]	.262	.255	.88216

a. Predictors: (Constant), Avg_Conscientiousness, Avg_Sportsmanship

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.202	2	29.101	37.395	<.001[b]
	Residual	164.202	211	.778		
	Total	222.404	213			

a. Dependent Variable: Total_Avg_WorkStress

b. Predictors: (Constant), Avg_Conscientiousness, Avg_Sportsmanship

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	19.798	2.358		8.395	<.001
	Avg_Sportsmanship	-4.253	.517	-.509	-8.219	<.001
	Avg_Conscientiousness	-.061	.530	-.007	-.115	.908

a. Dependent Variable: Total_Avg_WorkStress