INTERNATIONAL JOURNAL OF ADVANCED RESEARCH
Volume 2, Issue 2, 2025

WORK-RELATED FLOW, PSYCHOLOGICAL CAPITAL, AND ENGAGEMENT AMONG NON-PROFIT VOLUNTEERS: A GENDER-BASED STUDY

Hidna Iqbal

Centre for Clinical Psychology, University of the Punjab, Lahore

hidna.ccpsy@yahoo.com

Keywords
psychological capital, work-Related flow, work engagement, volunteers, non-profit organizations, job demands-resources model), correlation, gender differences

Article History
Received: 19 April, 2025
Accepted: 18 May, 2025
Published: 30 June, 2025

Corresponding Author: *
Hidna Iqbal

Abstract
This study examines the relationships between psychological capital, work-related flow, and work engagement among volunteers in non-profit organizations (NPOs), with a focus on gender differences. Psychological capital encompasses self-efficacy, optimism, hope, and resilience; work-related flow refers to deep immersion and enjoyment in work; and work engagement is a positive, fulfilling work mindset. Using a quantitative, correlational design, data were collected from 155 volunteers across various Pakistani NPOs through self-report questionnaires, grounded in the Job Demands-Resources (JDR) model. Results show significant positive correlations among psychological capital, work-related flow, and work engagement. Gender analysis revealed that females reported higher work-related flow and engagement, while psychological capital showed no significant gender difference. This research contributes to understanding volunteer dynamics and supports the development of gender-sensitive policies to enhance volunteering efforts. Limitations include a relatively small sample size, suggesting future longitudinal and qualitative studies to expand these findings.

INTRODUCTION

Volunteers who are affiliated with many organizations contribute a lot to social welfare without seeking monetary rewards or public recognition. Their roles expand across sectors such as health, education, child protection, ecological conservation, and family welfare (Xu et al., 2021). Non-profit organizations (NPOs), in which volunteers serve, play a role in social prosperity. Thus, volunteering certainly yields economic benefits but also cultivates compassion, social connectedness, and personal fulfillment (Xu et al., 2021; Gómez et al., 2023). Although prior research has linked prosocial behavior with volunteer work engagement (Rahmawati et al., 2023; Baert & Vujic, 2016), limited attention has been paid to the roles of psychological capital and work-related flow in volunteer engagement. Hence, this study contributes to the literature and helps us to determine new trends in the volunteering world. Understanding work-related flow, psychological capital, and work engagement among volunteers will give a new direction to the research in positive psychology.

Work-Related Flow

Csikszentmihalyi introduced the concept of flow in the 1970s. It refers to a state of peak experience, plus performance where people become deeply immersed into an activity, in balancing personal skills with task challenges (Wang & Shaheryar, 2020). Bakker (2005) extended this concept into occupational settings and coined the term work-related flow, which includes absorption, enjoyment, and intrinsic motivation at work (Liu et al., 2023).

Csikszentmihalyi defined eight flow characteristics: intense focus, clear tasks and results, a different sense

of time, internal reward, effortless action, balance of ability and challenge, loss of self-awareness, and performance control (Buckingham, 2024). Studies have found that work-related flow is related to job resources (autonomy), personal resources, and personality factors such as the autotelic personality (characterized by intrinsic motivation, persistence, and low self-focus). (Debus et al., 2014; Ullén et al., 2012; Oerlemans & Bakker, 2018). Flow predicts job-relevant (e.g., performance, positive work attitudes), as well as personal outcomes (e.g., life satisfaction), given that there are possible negative outcomes such as burnout.

Psychological Capital

Psychological capital (PsyCap) is described as a positive aspect of life that helps in the professional and personal growth of an individual. It covers four sub-concepts, which are stated as follows: efficacy, hope, resilience, and optimism (HERO) (Luthans et al., 2007). Hope is described as seeing the bright side of life, having a belief in achieving goals, and pursuing them.

Optimism is having a firm belief that everything is positive. Resilience represents the capacity to recover from difficulties, while self-efficacy reflects confidence in one's performance capabilities (Lorenz et al., 2016). Feelings of hope and optimism drive mental wellness while assisting people to achieve their goals. Building resilience requires accepting reality and finding purpose while learning to adapt to adversity. Studies show that psychological capital leads to increased flow (Zubair & Kamal, 2015). Moreover, higher psychological capital means greater work engagement (Nordin et al, 2019). Most research examines volunteers' reasons for service without delving into psychological capital, which enhances health and relationship satisfaction (Xu et al., 2021; Ohlin, 2024).

Work Engagement

Rahmawati and colleagues (2023) describe work engagement as a positive state of fulfillment demonstrated through vigor, dedication, and absorption. Vigor represents energy and persistence, while dedication connects to enthusiasm and pride, and absorption means deep concentration and task involvement. People who demonstrate work engagement actively put energy into their tasks and frequently achieve a flow state.

Work engagement stems from various social-psychological processes. It expands through coworkers and leaders, while it flourishes in successful teams and develops through job crafting and playful work design. Leaders have a pivotal function in developing engagement through both intentional and unintentional actions. The influence of work engagement extends beyond professional boundaries into family life and demonstrates its wider social effects (Bakker, 2022). The elements of engagement in volunteer settings consist of motivation, together with emotional investment and authentic contribution willingness (Alfes et al., 2016). While organizational commitment and satisfaction have received attention in volunteer research, the influence of psychological capital and flow on volunteer engagement still lacks sufficient exploration.

Theoretical Framework: JD-R Model

The JD-R model (Bakker & Demerouti, 2014) is the most widely used framework for organizational behavior (Tan, 2020), hence, it can be used as the theoretical basis for this research, as the examination of work engagement in volunteers working in NPOs comes under this category. This framework explains how work engagement can arise from the connection between job demands (e.g., emotional strain, workload) and job resources (e.g., autonomy, support, recognition). Job demands require efforts and hard work that may lead to strain, whereas job resources function as a motivating factor that helps individuals promote their personal growth and meet their work goals (Tummers & Bakker, 2021).

Incorporating this model in the study, psychological capital functions as a direct factor that affects the perception of job demands and resources, which will then affect the work engagement (Grover et al., 2018). For example, individuals with a high level of optimism have different perceptions about challenges, hence, they will exhibit better coping strategies. Furthermore, the motivating job resources (e.g., task variety, skill significance) enhance the indulgence of the individual in the task, facilitating work-related flow. (Fullagar & Kelloway, 2009; Oerlemans & Bakker, 2018). Another important objective of this study is to study gender differences. It is seen in the previous research

that gender differences exist in the perception of job demands and resources, which in turn affect work engagement (Tamar & Wirawan, 2018). Since all three variables—work-related flow, psychological capital, and work engagement—fit within the JD-R framework, the model is appropriate for understanding volunteer engagement dynamics.

Utilization of this framework and the three variables, this research significantly contributes to the literature gaps described above. This will help organizations like NPOs to discover the factors that enhance work-related flow among volunteers, ultimately benefiting society. Moreover, the gender differences in these variables will help the formation of gender specific policies, which will help increase work efficiency in males and females. Additionally, this investigation specifically targeted NPO volunteers, a population that has received limited attention in existing literature.

Literature Review

This section focuses on the scientific and empirical research from the literature related to our study, the articles are included from journals available online, and the indigenous research of Pakistan.

The relationship between three variables, including psychological capital, work related flow and creativity in employees, was studied by Zubair and Kamal. Those employees worked in Indian software houses. The sample size selected for this study was 532 employees who were working in Rawalpindi and Islamabad. The tools used for this study included, Psychological Capital Questionnaire (PCQ), the Work-Related Flow Scale (WOLF), and the Creativity Scale (CS). The findings of this study revealed that there was a positive correlation between work-related flow, psychological capital and employee creativity. Additionally, t tests for gender differences revealed that women scored less in psychological capital, work related flow and work place creativity in comparison to men.

A study by Nordin and his colleagues in 2019 examined the relationship between work engagement and psychological capital. This study was conducted in Johor, Malaysia. It showed that psychological capital positively correlates with work engagement, suggesting a significant association of psychological capital with work engagement. The aim of the study was to find out the impact of psychological capital on the work engagement of employees. The quantitative research design was incorporated in the study. The sampling strategy was convenience sampling and the sample size selected was 200 employees working in a corporate setting in Johor. A quantitative research design was used for this study. The Psychological Capital Questionnaire was used to assess the Psychological Capital that was developed by Luthans and his colleagues (2019), while the Work Engagement (WE) was assessed using the tool of Schaufeli & Bakker (2003) named Utrecht Work Engagement Scale (UWES). All the gathered data were analyzed using SPSS version 22. The results of correlational analysis revealed that employees of Company X had a high level of Psychological Capital and were able to adapt according to the demands of their nature of work. These employees exhibited greater flexibility. The results of regression analysis revealed that work engagement was significantly influenced by psychological capital.

The association between psychological capital (PsyCap) and dedication to volunteering in volunteers was assessed by a study of XU and his colleagues. The hypothesis of this study indicates that volunteers' psychological capital will positively predict volunteering, with organizational commitment as a mediator in the study. According to the results, the impact of psychological capital on volunteering was assessed, as there was a significant relationship between the variables under study. Psychological capital, role identification, volunteering, perceived social support, and organizational commitment were positively correlated with each other. Furthermore, the influence of volunteers' PsyCap on organizational commitment was found to be moderated by both role identification and perceived social support. The study included old volunteers (Xu et al., 2020). On such a basis, this study aimed to explore the personal or psychological resources that can be related to work engagement in volunteering tasks of young adults specifically (Xu et al., 2020)

Work demands are those elements of a job that are social, psychological, physical, or organizational and that call for a consistent level of effort or skill on the part of the worker. These demands are linked to specific psychological or physiological costs. The physical, psychological, social, and organizational

components of a work that are necessary to accomplish work objectives are referred to as resources. Any disparities between them will have an impact on individuals and the organization, either positively or negatively (Sim & Lew, 2020). Another research explored the relationship between job demands, resources, and work engagement among sports volunteers, including the application of a questionnaire on a sample of 116 volunteers. The results showed that the job resources with the greatest impact on volunteer engagement were social support, feedback, and supervisor support. The job demands had a negative impact on volunteer engagement. There was an inverse relationship between job demands and job resources with respect to engagement in the volunteer context (McMorrow, 2014).

Tamar & Wirawan (2018) conducted research on the effect of PsyCap on work engagement, with the moderating role of gender and job type, with a sample of 466 participants from Makassar. The findings showed that there is a slight difference in PsyCap in males and females. The cross-product of job type, PsyCap, and gender had a positive and significant influence on work engagement. The results showed that the influence of PsyCap on work engagement in women is stronger than that in men.

The association of the Flow Concept with autotelic personality emphasizes the phenomenology of the construct, i.e., they extract satisfaction and contentment from difficult tasks and reflect the state of engagement (Nakamura and Csikszentmihalyi, 2002). The study aims to evaluate the dynamics of this momentary experience of flow at work and how it correlates with psychological capital and work engagement.

A comparative study by Silva Peralta et al. (2019) on volunteer engagement suggests the significance of work engagement and its dimensions in volunteers affiliated with an organization. In this study, significant gender differences were also assessed. It indicates that there are significant gender differences in work engagement. Furthermore, a study by Schaufeli aimed to evaluate the gender differences in work engagement based on the contradictory results mentioned in the literature. The results of this study revealed that men scored slightly higher on the three facets of work engagement while women scored slightly lower than men, with a slight difference of 0.05 (Schaufeli & Bakker, 2003).

Objectives

- To examine the relationship between psychological capital, work-related flow, and work engagement among volunteers working in non-profit organizations (NPOs).
- To assess gender differences in psychological capital, work-related flow, and work engagement among NPO volunteers.

Methodology

Research Design

A quantitative study was conducted by using questionnaires as the source of data collection. A purposive sampling technique was utilized since inclusion and exclusion criteria were defined. The sample size determined using G-Power was 162 volunteers, with a mean age of 21 years.

Inclusion Criteria

Volunteers, both men and women, presently working with non-government organizations (NPOs) for at least one month, were included in the research. An understanding of the English language was mandatory since the available questionnaires were in English.

Exclusion Criteria

The sample excluded volunteers with disabilities to ensure that all participants are able to actively take part in the planned activities. It excluded people with leadership roles in non-government organizations due to authority biases and people with a consistent job at the organization.

Measures

A demographic sheet was used to gather background information regarding participants. This study used three psychometrically sound scales, i.e., the Psychological Capital Questionnaire (Luthans et al., 2007), comprising 12 items, the Work-Related Flow Scale (Bakker & van der Wolf, 2008) with 13 items, and the Utrecht Work Engagement Scale (Schaufeli & Bakker, 2004) consisting of 17 items to assess participants' levels of psychological capital, work-related flow, and work engagement, respectively. All items employed a Likert-type style to facilitate data

interpretation and were chosen for their robust reliability and validity.

Procedure

A pilot study was conducted with 5 to 6 volunteers who met the inclusion criteria, and no issues were reported. Once approved by the supervisor, the research topic was finalized and a permission letter was signed by the Director, and approval was obtained from the respective NPOs before proceeding. Participants who met the criteria were informed about the study's purpose, and questionnaires were only given to those who agreed to participate. Informed consent was obtained from all participants, and they were informed of their right to withdraw at any time without consequences. Confidentiality was ensured, and personal information and responses were kept confidential to protect privacy by collecting completed questionnaires in sealed envelopes. Necessary steps were taken to ensure no harm to participants. Data was managed carefully, with strict rules against falsification, and all the sources were properly cited. SPSS (2022 edition) was used for data analysis, applying both descriptive and inferential techniques.

Analysis

This section presents the findings of the analysis conducted for both hypotheses of the designed study. 155 (95%) out of a total sample of 162 volunteers completed the questionnaires on which the respective analyses were done. The respondents included 77 (47%) men and 78 (48%) women. For the study, $p < 0.05$ was adopted as the criterion for establishing statistical significance.

The relationship between the three variables was determined using correlational analysis. As illustrated in Table 1, Pearson correlational analysis revealed that Work Engagement has a significant and moderate positive relation with Psychological Capital ($r = .554$, $p < .05$, one-tailed), indicating that as individuals' Psychological Capital increases, their Work Engagement also tends to increase. Work Engagement showed a significant positive correlation with Work-related Flow ($r = .609$, $p < .05$, one-tailed) as well, suggesting that higher levels of Work-related Flow are associated with greater Work Engagement. Additionally, Psychological Capital is significantly, moderately, and positively correlated with Work-related Flow ($r = .533$, $p < .05$, one-tailed), meaning that individuals with higher Psychological Capital are likely to experience greater Work-related Flow. These results highlight the interconnectedness of variables under study, such that an increase in Work-related Flow and Psychological Capital contributes to higher levels of Work Engagement.

Table 1

Descriptive Statistics and Correlations for Study Variables

Variables	N	M	SD	1	2	3
1. Average Work Flow Total	155	63.7717	19.23206	-	.533**	.609**
2. Average Psych Cap Total	155	71.9624	14.49592	.533**	-	.554**
3. Average Work Engagement Total	155	56.5465	21.69562	.609**	.554**	-

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

Next, an independent samples t-test was conducted to analyze the gender differences in the variables under study. The results of this study, as shown in Table 2, show that there are significant gender differences in work engagement and work-related flow, with women scoring higher in both areas. Specifically, work engagement was significantly higher in women ($t(153) = -2.760$, $p = .006$), indicating that women tend to be more engaged in their work compared to men. Similarly, work-related flow was also significantly higher in women ($t(153) = -3.607$, $p < .001$), suggesting that women experience a greater sense of immersion and focus in their work activities than men. On the other hand, psychological capital, which includes traits like self-efficacy and optimism, did not show a significant gender difference ($t(153) = -1.196$, $p = .234$), indicating that both men and women possess similar levels of psychological resources.

Table 2
Independent Samples t-test Results for Gender Differences in Work-related Flow, Psychological Capital, and Work Engagement

Variable	Men		Women		t (153)	p
	M	SD	M	SD		
Work Flow	58.3702	15.77217	69.1040	20.88624	-3.607	<.001
Psych Cap	70.5628	15.43322	73.3440	13.46402	-1.196	.234
Work Engagement	51.8062	14.37827	61.2260	26.31913	-2.760	.006

Note: A confidence interval of 95% is utilized for the analysis. (alpha = .05)

These findings suggest that gender influences certain aspects of work experience, such as engagement and flow, while psychological capital appears to be equally distributed between men and women.

Discussion

The present study aimed at exploring the relationship between psychological capital, work-related flow, and work engagement in volunteers in non-profit organizations, which turned out to be significant and positive. It means that the volunteers who possess greater psychological capital and work-related flow and found to be more engaged in their work. The analysis further revealed significant differences across gender groups, with women reporting greater levels of work-related flow and work engagement, whereas no significant difference was observed in terms of psychological capital. This means that gender plays a role in determining work engagement in volunteers working in non-profit organizations.

The obtained results align with the existing studies that explain the relationship between psychological capital and work engagement or performance in various organizational settings (Biswal et al., 2023; Luthans et al., 2007). A few studies have exhibited the same results which have elaborated the influence of the construct of psychological capital on the dependent variable i.e. work-engagement (Joo et al., 2016; Simons & Buitendach, 2013). Psychological capital assists in helping individuals to cope up with stressful situations and enhance their work performance (Rabenu et al., 2017). People who get absorbed in their work and perform dedicatedly, as in work engagement, practice to maximize their personal resources to function optimally at work, and this greater resource consequently leads to better engagement. Thus, psychological capital and work engagement tend to work in a loop (Bakker et al., 2023).

A meta-analysis related to the antecedents and outcomes of flow revealed that flow has an overall significant and positive relationship with work engagement as its outcome (Liu et al., 2023). One of the characteristics of flow i.e. intrinsic motivation (Bakker et al., 2008) is proved to have an effect on work performance (Bakker et al., 2008; Bakker & Woerkom, 2017). One of the other studies revealed psychological capital, work-related flow and work engagement to have a positive correlation in teachers in educational services (Pompuang et al., 2019). Personal resources which constitute self-efficacy, resilience and optimism also come under the umbrella of psychological capital (Pompuang et al., 2019) and are correlated to work-related flow (Debus et al., 2014 Kalwaya et al., 2019).

The interplay of psychological capital, work-related flow and work engagement plays an important role in improving the functioning of non-profit organizations. The volunteers work under the influence of their intrinsic motivation, which often paves the path toward better and long-lasting engagement (Bidee et al., 2017). Volunteers experience enhanced work related flow due to possessing greater psychological capital (Zubair & Kamal, 2015), which consequently improves their work satisfaction (Liu et al., 2019). Better engagement of volunteers results in their optimum contribution in society. This research, thus, adds to the prior literature by filling the population gap in terms of these constructs. Better and impactful contributions of an NPO in society can be made possible by the intervention of the leadership by aiming at the development of these resources in their volunteers.

An increase in social and humanitarian issues has led to an increased number of people joining non-profit organizations to contribute to society to the maximum. Pakistan has always been involved in such philanthropic activities, which go down to its Islamic ideology (Yasir et al., 2016). A massive number of people joining non-profits is proof of that. Therefore, the surety of their optimum functioning is important.
Gender differences in the variables under scrutiny revealed women to have greater work-related flow and work engagement, whereas no difference in psychological capital, in men and women, was observed. Research supports the indifference in psychological capital across gender groups (Rani & Chaturvedula, 2018). The gender differences with women having greater levels of work-related flow and work engagement are in line with previous research (Ardura & Atola, 2021; Bardhan & Haque, 2024; Zubair & Kamal, 2015). On the other hand, other researches revealed that men tend to possess greater levels of psychological capital than women (Tamar & Wirawan, 2020; Zubair & Kamal, 2015), and work engagement does not differ across genders (Tamar & Wirawan, 2020), which is contrary to the findings of our study.
Culturally, women in South Asia constitute the role of primary caregivers and are responsible for household chores. This requires multitasking, resilience, and emotional intelligence to cope with the stressors if any appear. Women having these traits have become able to deal with stressors in workplaces and are better able to keep themselves resilient and hopeful. Moreover, they tend to exhibit traits of affection, altruism, and are more involved in prosocial behaviors (Paulin et al., 2014 as cited in Gomez et al., 2023). The results of a greater level of flow and engagement might be the result of these factors. Optimistic individuals deal with challenges differently from those with negative perceptions. The motivating job characteristics, like helping others in social work, facilitate this flow-like experience (Oerlemans & Bakker, 2018). In terms of getting involved in volunteering for charitable activities, women are found to possess a higher score on motivation and helping others (Einolf, C, 2011). Since motivation is one characteristic of flow, therefore holds for greater flow and consequently improved work engagement in women. Conscientiousness is proven to have a positive correlation with work flow (Liu et al., 2023), and is higher in women (Caprara et al., 2012), therefore, this can be the reason for women possessing greater work flow.
Demographically, young adults seem to be more motivated towards global issues and volunteering (McDougle et al., 2011). Moreover, various factors impel young adults to take part in volunteering, including religious beliefs, attitudes (Adnan et al., 2023). On the other hand, lifestyles, religious measures, prior experience, and high socio-economic status also act as predictive factors in explaining the high rate of involvement of youngsters in volunteering (Lu et al., 2021).
According to the job demands-resources model, the job resources, which are represented by psychological capital, and work-related flow in our study, help te volunteers deal with their demanding tasks. This results in improved motivation and work engagement. Various researches that have worked on work flow and work engagement have incorporated this model (McMorrow, 2018; Tamar & Wirawan, 2018; Xiaoxi et al., 2017). Based on this model, psychological capital also affects the job related perceptions and therefore influence the outcomes of one's engagement (Grover et al., 2018). The Conservation of Resource Theory has concluded that work flow assists in building and conserving personal resources (Salanova et al., 2006) while producing work engagement (Bakker et al., 2004).
A few limitations in this study have been listed. This includes smaller sample size which might have reduced the generalizability of results. He study was designed on a correlational basis, which limited the study of effect of effect of causality of the constructs. Therefore, in the future, an inclusion or grater sample size with diverse ethnicities, and utilization of other statistical methods is preferred.

Conclusion

The results show that psychological capital, work-related flow and work engagement have a significant and positive relationship with each other. Moreover, female volunteers show higher levels of work-related flow and work engagement. On the other hand, there are no significant gender differences regarding Psychological Capital in both genders.

REFERENCES

Adnan, N. N., Shuhaimi, S. F. M., & Aminuddin, A. (2023, July). Factors that Contribute to Youth Participation in Volunteering Activities in Sungai Petani. In 4th International Conference on the Future of Asean 2022 (ICoFA 2023) (pp. 299-309). Atlantis Press.

Alfes, K., Shantz, A., & Bailey, C. (2016). Enhancing volunteer engagement to achieve desirable outcomes: what can non-profit employers do?. VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations, 27, 595-617.

Bakker, A. B., & Van Woerkom, M. (2017). Flow at work: A self-determination perspective. Occupational Health Science, 1, 47-65.

Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. (2023). Job demands–resources theory: Ten years later. Annual review of organizational psychology and organizational behavior, 10(1), 25-53.

Bakker, A. B. (2022). The social psychology of work engagement: state of the field. Career Development International, 27(1), 36-53.

Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD–R approach. Annual review of organizational psychology and organizational behavior, 1(2014), 389-411.

Baert, S., & Vujić, S. (2016). Does it pay to care? Prosocial engagement and employment opportunities (No. 9649). IZA Discussion Papers.

Bardhan, S., & Haque, S. (2024). Employee Engagement and Gender Differences: Managing Diversity in Healthcare Organizations of West Bengal. Gender Issues and Challenges, 33.

Bidee, J., Vantilborgh, T., Pepermans, R., Willems, J., Jegers, M., & Hofmans, J. (2017). Daily motivation of volunteers in healthcare organizations: relating team inclusion and intrinsic motivation using self-determination theory. European Journal of Work and Organizational Psychology, 26(3), 325-336.

Biswal, K., Srivastava, K. B., & Alli, S. F. (2023). Psychological capital and work engagement: moderating role of social relationships. Annals of Neurosciences, 09727531231198964.

Buckingham, L. (2024, July 23). 8 traits of flow according to Mihaly Csikszentmihalyi. Happio. https://happio.io/-8-traits-of-flow-according-to-mihaly-csikszentmihalyi-

Debus, M. E., Sonnentag, S., Deutsch, W., & Nussbeck, F. W. (2014). Making flow happen: the effects of being recovered on work-related flow between and within days. Journal of applied psychology, 99(4), 713.

Einolf, C. J. (2011). Gender differences in the correlates of volunteering and charitable giving. Nonprofit and Voluntary Sector Quarterly, 40(6), 1092-1112.

Fullagar, C. J., & Kelloway, E. K. (2009). Flow at work: An experience sampling approach. Journal of occupational and organizational psychology, 82(3), 595- 615.

Gómez, M. D. C. O., Suárez, M. L., Garzón, F. R., & Baxodirovna, R. P. S. (2023). Exploring the link between volunteering, wellbeing, and positive psychology: the role of NGOS and work placement programs. Journal of Positive Psychology and Wellbeing, 7(2), 1268-1281.

Grover, S. L., Teo, S. T., Pick, D., Roche, M., & Newton, C. J. (2018). Psychological capital as a personal resource in the JD-R model. Personnel Review, 47(4), 968-984.

Joo, B. K., Lim, D. H., & Kim, S. (2016). Enhancing work engagement: the roles of psychological capital, authentic leadership, and work empowerment. Leadership & Organization Development Journal, 37(8), 1117-1134.

Kawalya, C., Munene, J. C., Ntayi, J., Kagaari, J., Mafabi, S., & Kasekende, F. (2019). Psychological capital and happiness at the workplace: The mediating role of flow experience. Cogent Business & Management, 6(1), 1685060.

Liu, W., Lu, H., Li, P., van der Linden, D., & Bakker, A. B. (2023). Antecedents and outcomes of work-related flow: A meta-analysis. Journal of Vocational Behavior, 144, 103891.

Lorenz, T., Beer, C., Pütz, J., & Heinitz, K. (2016).

Measuring psychological capital: Construction and validation of the compound PsyCap scale (CPC- 12). PloS one, 11(4), e0152892.

Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. Personnel psychology, 60(3), 541-572.

Lu, P., Xu, C., & Shelley, M. (2021). A state-of-the-art review of the socio-ecological correlates of volunteerism among older adults. Ageing & Society, 41(8), 1833-1857.

Maeran, R., & Cangiano, F. (2013). Flow experience and job characteristics: Analyzing the role of flow in job satisfaction. TPM-Testing, Psychometrics, Methodology in Applied Psychology, 20(1), 13-26.

McDougle, L. M., Greenspan, I., & Handy, F. (2011). Generation green: Understanding the motivations and mechanisms influencing young adults' environmental volunteering. International Journal of Nonprofit and Voluntary Sector Marketing, 16(4), 325-341.

Nordin, N. A., Rashid, Y. K. A., Panatik, S. A., & Rashid, A. H. A. (2019). Relationship between psychological capital and work engagement. Journal of Research in Psychology, 1(4), 6-12.

Nakamura, Csikszentmihalyi, J., Mihaly. (2002). 7 The concept of flow. https://nuovoeutile.it/wp-content/uploads/2015/12/2002-Flow.pdf

Oerlemans, W. G., & Bakker, A. B. (2018). Motivating job characteristics and happiness at work: A multilevel perspective. Journal of Applied Psychology, 103(11), 1230.

Ohlin, B. (2024, February 28). Psycap 101: Your guide to increasing psychological capital. PositivePsychology.com. https://positivepsychology.com/psychological- capital-psycap/

Olmos-Gómez, M. D. C., Ruiz-Garzón, F., Azancot-Chocron, D., & López-Cordero, R. (2023). Prosocial behaviour axioms and values: Influence of gender and volunteering. Psicologia: Reflexão e Crítica, 36, 16.

Pompuang, L., Buresuwan, P., Sarnswang, S., & Lupanachokdee, W. (2019). A causal model of psychological capital and job resources, with work engagement as a mediator, affecting flow at work of teachers under the secondary educational service area 3 office. Asian Interdisciplinary and Sustainability Review, 8(1), 119-130.

Rabenu, E., Yaniv, E., & Elizur, D. (2017). The relationship between psychological capital, coping with stress, well-being, and performance. Current Psychology, 36, 875-887.

Rani, E. K., & Chaturvedula, S. (2018). Psychological capital: Gender differences and its relationship with job involvement. Defence Life Science Journal, 3(4), 383-387.

Rodríguez-Ardura, I., & Meseguer-Artola, A. (2021). Flow experiences in personalised e-learning environments and the role of gender and academic performance. Interactive Learning Environments, 29(1), 59-82.

Rahmawati, Y. I., Wangid, M. N., Ayriza, Y., & Yuhenita, N. N. (2023). Relationship of Prosocial Behavior to Work Engagement in Female Volunteers in Indonesia. International Journal of Multicultural and Multireligious Understanding, 10(6), 31-41.

Schaufeli, W. B., & Bakker, A. B. (2003). Utrecht work engagement scale: Preliminary manual. Occupational Health Psychology Unit, Utrecht University, Utrecht, 26(1), 64-100.

Silva Peralta, Y. F., Arias, S. G., Caracciolo, L. V., Vega, J. P., & Rompato, M. E. (2019). Volunteers engagement: a comparative study.

Simons, J. C., & Buitendach, J. H. (2013). Psychological capital, work engagement and organisational commitment amongst call centre employees in South Africa. SA Journal of Industrial Psychology, 39(2), 1-12.

Tamar, M., & Wirawan, H. (2020). The effect of psychological capital on work engagement: investigating the moderating effect of gender and job. In Proceedings of the 3rd International Conference on Psychology in Health, Educational, Social, and Organizational Settings (ICPHESOS 2018)-Improving Mental Health and Harmony in Global Community (Vol. 17220, pp. 535-542).

Tan, K. L., Lew, T. Y., & Sim, A. K. (2021). Effect of work engagement on meaningful workand psychological capital: perspectives from social workers in NewZealand. Employee Relations: The International Journal, 43(3), 807-826.

Tshilongamulenzhe, M. C., & Takawira, N. (2015). Examining the gender influence on employees' work engagement within a South African University. Risk Governance and Control: Financial Markets and Institutions, 5(2), 110-119.

Tummers, L. G., & Bakker, A. B. (2021). Leadership and job demands-resources theory: A systematic review. Frontiers in psychology, 12, 722080

Ullén, F., de Manzano, Ö., Almeida, R., Magnusson, P. K., Pedersen, N. L., Nakamura, J., ... & Madison, G. (2012). Proneness for psychological flow in everyday life: Associations with personality and intelligence. Personality and individual differences, 52(2), 167-172.

Wang, X., & Shaheryar. (2020). Work-related flow: the development of a theoretical framework based on the high involvement HRM practices with mediating role of affective commitment and moderating effect of emotional intelligence. Frontiers inPsychology, 11, 564444.

Wang, X., Liu, L., Zou, F., Hao, J., & Wu, H. (2017). Associations of occupational stressors, perceived organizational support, and psychological capital with work engagement among Chinese female nurses. BioMed research international, 2017(1), 5284628.

Wirawan, H., Jufri, M., & Saman, A. (2020). The effect of authentic leadership and psychological capital on work engagement: the mediating role of job satisfaction. Leadership & Organization Development Journal, 41(8), 1139-1154.

Xu, J., Chen, S., & Huang, D. (2016, September). Transforming psychological capital and flow experience of R&D employees into performance. In 2016, Portland International Conference on Management of Engineering and Technology (PICMET) (pp. 1697- 1705). IEEE.

Xu, L. P., Liao, J. B., Wu, Y. S., & Kuang, H. D. (2021). Effect of psychological capital of volunteers on volunteering behavior: the chained mediation role of perceived social support and volunteer motivation. Frontiers in Psychology, 12, 657877.

Yasir, M., Imran, R., Irshad, M. K., Mohamad, N. A., & Khan, M. M. (2016). Leadership styles in relation to employees' trust and organizational change capacity: Evidence from non-profit organizations. Sage Open, 6(4), 2158244016675396.

Zubair, A., & Kamal, A. (2015). Work related flow, psychological capital, and creativity among employees of software houses. Psychological Studies, 60, 321-331