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Effect of the Luthans's Psychological Capital Model Intervention on Workplace Ostracism, Counterproductive Work Behaviour, and Nurses' Psychological Wellbeing

Safaa Ibrahem Shattla[1,2], Marwa H. Ageiz[3], Nouf Afit Aldhafeeri[4,5], Enas E. Elsawah[3], Hanaa M. Abo Shereda[1,4,5], Rasha Kamal Sweelam[1,6]

[1]Psychiatric and Mental health Nursing, Faculty of Nursing, Menoufia University, 6131567 Menofia Governorate, Egypt
[2]Faculty of Nursing, King Khalid University, Khamis Mushait, 62454, Saudi Arabia
[3]Faculty of Nursing, Menoufia University, 6131567 Menofia Governorate, Egypt
[4]College of Nursing, King Saud bin Abdulaziz University for Health Sciences (KSAU-HS), Ar Rimayah, 11481 Riyadh, Saudi Arabia
[5]King Abdullah International Medical Research Center (KAIMRC), Ar Rimayah, 11481 Riyadh, Saudi Arabia
[6]Faculty of Nursing, Northern Border University, 73213 Arar, Saudi Arabia

Corresponding Author's Email: thufairin@ksau-hs.edu.sa

ABSTRACT

Background: Psychological capital is a good trait, and its malleability and openness to growth have garnered it a great deal of attention in recent years. The aim of the study was to examine the impact of an educational program using Luthans's Psychological Capital Model on workplace ostracism, counterproductive work behaviours, and nurses' psychological well-being. **Objective:** A quasi-experimental. Five instruments were used: (1) an interview questionnaire, (2) the Psychological Capital Questionnaire, (3) the Workplace Ostracism Scale, (4) the Counterproductive Work Behaviours Checklist, and (5) the Psychological Wellbeing Scale. The research was conducted at a university hospital in Menoufia Governorate, Egypt, with 100 nurses who have workplace ostracism divided into two groups. **Results:** The psychological capital score mean of the study and control groups was 54.9 ± 12.5 and 36.4 ± 4.67, respectively, on the post-test. Also, it revealed that the mean scores of workplace ostracism among the study and control groups were 26.2 ± 2.67 and 44.5 ± 5.51, respectively, on the post-test. In addition, the mean scores of counterproductive work behaviours in the study and control groups were 40.5 ± 6.72 and 64.4 ± 7.61, respectively, on the post-test. The mean score of psychological well-being for the study group was 86.6 ± 8.71, while in the control group it was 57.9 ± 8.20. Moreover, a positive correlation among psychological capital and psychological well-being and a negative correlation among psychological capital, workplace ostracism, and counterproductive work behaviours of the studied group post-intervention. **Conclusion:** Implementation of Luthans's psychological capital intervention was effective in improving nurses' psychological well-being, lowering workplace ostracism, and counterproductive work behaviours. **Recommendations:** It is recommended that the integration of Luthans's psychological capital model in undergraduate nursing curricula is very essential in preparing nursing students for the workforce, and implementing this program in the clinical settings can help to improve the psychological capital of nurses.

Keywords: Counterproductive Behaviour; Ostracism; Psychological Capital; Psychological Wellbeing

INTRODUCTION

Being in direct contact with patients, patients' families, and doctors makes nursing one of the most stressful professions. It is a very difficult profession due to emergency responsibilities, night shifts and long working

hours, emotionally demanding tasks, hostile patients, and physician pressure (Riskin *et al.*, 2019). The majority of nurses experience ostracism at work (Elliethey, Abou Hashish & Elbassal, 2024; Sabir *et al.*, 2024).

Workplace Ostracism (WO) is referred to when one group or individual is excluded, rejected, or ignored by another group or individual (Zhu & Zhang, 2021). This can make it difficult to build or sustain strong relationships with coworkers, succeed in one's career, or have a positive reputation at work. WO may negatively affect employees' engagement with their jobs, feelings of job satisfaction, organisational citizenship, performance, and physical and mental well-being (Elliethey, Abou Hashish & Elbassal, 2024). Also, WO has a negative effect on nurses' participation because it depletes the resources of target nurses, creating stressful emotional situations. Nurses become disengaged from their occupations as a result of altering work outcomes when there are insufficient resources to achieve work standards (Basuny, Abd El-Rahman & Ashour 2024; Elliethey, Abou Hashish & Elbassal, 2024). WO can result in incompatible behaviours and chronic, profound suffering. As a result, when nurses experience peer rejection, they start to feel helpless, sad, aggressive, and unworthy, endangering their basic need for a sense of belonging, which causes them to engage in unproductive work conduct (Elliethey, Abou Hashish & Elbassal, 2024; Sabir *et al.*, 2024). Furthermore, the victims of WO feel out of place at work, which drives them to engage in counterproductive work behaviours (CWB). The individual in question has job stress as a result of feeling out of place at work (Elliethey, Abou Hashish & Elbassal, 2024; Sabir *et al.*, 2024).

Counterproductive Work Behaviours (CWBs) are manifested by employees' aggressive actions that are potentially detrimental to an organisation or its stakeholders' interests (Meisler, Drory & Vigoda-Gadot, 2020). Such actions may not only result in significant losses for a business but also have far-reaching effects on society (Ciampa *et al.*, 2021). Organisational success is negatively affected when individuals participate in CWBs. In the case of hospitals, it is true that nurses strained mental states may have a severe effect on the quality of care patients receive. This could result in significant medical errors, which could negatively impact both patients and the entire hospital's organisation (Gürlek, 2021).

Aggressive behaviours, which include counterproductive work actions (Elliethey, Abou Hashish & Elbassal, 2024). Ignoring and being excluded by others is one of the most frequent negative interpersonal communication situations. Because of this, the type of WO experienced and the circumstances surrounding it might have a stronger influence on the individual's future internal state, behavioural outcomes, and psychological well-being (Filipkowski & Derbis, 2020). To handle emotional, motivational, cognitive, and behavioural components at work, Luthans' psychological capital model is seen as a useful model. It is made up of four components: optimism (having a positive outlook on present and future successes), resilience (sustainability when faced with problems and hardships for success), and self-efficacy (having the self-assurance to put forth the necessary effort and commitment for success in difficult tasks) (Youn, 2024).

An interventional strategy developed by the Luthans called the Psychological Capital Intervention (PsyCap) model places a strong emphasis on the formation and expansion of positive elements of individuals. Plans exist in Luthans' intervention program to advance psychological capital, concentrating on each of its constituent parts (Movahedi, Oudi & Rad, 2018). Those with high psychological capital are more likely to endure and defend their resources when confronted with problems and hurdles, and they are also more likely to feel hopeful about the future under stressful situations (Youn, 2024).

The present research uses the psychological capital intervention approach (PsyCap), which focusses on helping individuals realise their full potential to enhance their performance and well-being at work (Luthans *et al.*, 2006). Psychological capital is comprised of the HERO model's four core components. These psychological components include optimism, hope, efficacy, and resilience. The first model resource is hope, which is characterised as a cognitive process that drives the discovery of willpower (goal-directed determination) and warpower (planning strategies to achieve objectives), which in turn generates pleasant feelings (the expectation of meeting desired goals). Confidence is a common synonym for efficacy, which stems from positive prior experiences and emulating others who have achieved success. Resilience is an internal resource that enables humans to deal with demanding or unpleasant circumstances. The fourth resource in the HERO model is optimism, which consists of either steadfast faith that things will work out or the ability to build realistic optimism (Luthans *et al.*, 2006).

According to Bogler and Somech (2019), psychological capital refers to the process of cultivating hope, resilience, self-efficacy, and optimism to create a positive psychological state. Psychological capital works with positive psychology, to put it in another way. Through efficient programs and seminars that promote well-being, positive psychology seeks to strengthen people's positive qualities and positive experiences while maintaining their mental health (Köse, Köse & Uğurluoğlu, 2018).

Psychological capital is significant to the success of individuals in healthcare organisations, especially nurses, because the relevance of their involvement in delivering healthcare to the community and their work factors are evaluated. These skills enable people to think more clearly in challenging circumstances, avoid wasting emotions like like rage, dread and calm their minds (Flinkman *et al*., 2023). This sets the way for building a healthy work environment by encouraging nurses to be happier and exhibit better attendance at work and in other parts of their lives, which will likely have a multiplier impact on their mental health and their psychological well-being (Ali *et al*., 2022).

Objective

Examine the impact of an educational program using Luthans's Psychological Capital Model on workplace ostracism, counterproductive work behaviours, and nurses' psychological well-being.

METHODOLOGY

Design, Setting and Participants

A quasi-experimental design was used to evaluate the effectiveness of the educational program; the researchers used an interventional study without truly randomising the participants. The convenience sampling was used to recruit the participants based on inclusion and exclusion criteria. A total of nurses who have workplace ostracism were divided into two groups. The subjects were nurses from emergency, critical care units, haemodialysis, medicine, and psychiatric mental health units working at University Hospital in Menoufia Governorate, Egypt. Both groups met the inclusion criteria: nurses of both genders have workplace ostracism and counterproductive work behaviours, and they are free from other medical and psychiatric disorders.

Instruments

Five instruments were utilized to measure study variables:

A) Sociodemographic Data: It consisted of questions related to age, gender, residence, marital status, educational level, job title, income, working unit, years of experience and satisfaction with the work environment.

B) Psychological Capital Questionnaire: It was originally developed by Luthans *et al*. (2007) and translated into Arabic and validated by the researchers. It included 24 items that were designed to assess psychological capital in organisational contexts. It consists of four dimensions: optimism, self-efficacy, hope and resilience. Each dimension contains 6 items. Each PCQ item was graded using a straightforward 6-point Likert scale. Responses ranged from strongly disagree to strongly agree.

C) Workplace Ostracism Scale: It was created by Ferris *et al*. (2008) and adapted by Abd Allah Mohamed, Yassein Hussein and Mohamed (2021). The 20-item scale was created to measure staff nurses' feelings of workplace exclusion. It is broken into two subscales: ostracism perception (10 items) and ostracism's personal impact (10 items). On a 3-point Likert scale ranging from (1) disagree to (3) agree, nurses' comments were ranked based on that. The total score of the scale ranges from 20 to 60; 20 to 33 indicates low-level workplace ostracism, 34 to 47 indicates moderate-level workplace ostracism, and 48 to 60 indicates high-level workplace ostracism.

D) Counterproductive Work Behaviour (CWB) (C32): It was created by Spector *et al*. (2006) and translated into Arabic by the researchers. This checklist consists of 32 items covering five categories: abuse against others (items 8, 9, 14, 15, 19, 20, 21, 23-32), production deviance (items 2, 10, and 12), sabotage (items 1, 5, 6), theft (items 7, 16, 17, 18, 22), and withdrawal (items 3, 4, 11, 13). On a three-point scale, these objects were ranked from (1) never to (3) always. The range of total score levels was 32-96 (Spector et al., 2006). The high

scores indicate high levels of CWBs, and the low scores indicate lower levels of CWBs.

E) Psychological well-being scale: It was originally created by Abbott et al. (2006), and it has 42 items created to assess psychological well-being. The scale covers six dimensions, each one containing seven items, which include autonomy (1-7), environmental mastery (8-14), personal growth (15-21), positive relation with others (22-28), purpose in life (29-35), and self-acceptance (36-42). On a 3-point Likert scale ranging from "1-disagree" to "3-agree," nurses' replies were graded. Total scores can range from 42 to 126. Low psychological well-being from (42-63); mild psychological well-being from (64-85); moderate psychological well-being from (86-106); high psychological well-being from (107-126). A high score on this scale suggests that the responder has mastered well-being in their lives. In contrast, a low score indicates that the responder has difficulty feeling comfortable with this topic.

Data Collection Method:

The researchers divided 100 nurses, who were equally assigned to the study group (n = 50) and control group (n = 50). The study was conducted from the beginning of September to November 2022. The intervention was administered for 60 minutes once per week for 10 weeks to the study group only. Psychological capital intervention included ten sessions using a pre-post-test.

Table 1 presents an educational program structured around Luthans's Psychological Capital Model, focusing on developing psychological strengths like optimism, resilience, self-efficacy, and hope. It includes sessions that introduce these concepts, provide practical techniques, and train participants in positive thinking, stress management, and workplace resilience. The program concludes with a post-assessment to measure its effectiveness.

Table 1: Educational Program Sessions Based on Luthans's Psychological Capital Model

Session	Objective
First session	• Introducing program objectives • Collect pre-test instruments • Identifying, integrating, and clarifying the objective of psychological capital's
Second session	• Introduce psychological capital, including its definition, forms, types, benefits, and elements (hope, efficacy, resilience, and optimism), • Discuss effects of workplace ostracism, including information about the meaning, the effect of counterproductive work behavior, and steps to improve psychological wellbeing
Third session	• Define optimism and its significant • Train nurses to use practical simple steps of optimism.
Fourth session	• Define hope and discuss stores and situations related. • Train nurses on hope-instilling strategy
Fifth and sixth sessions	• Define self-efficacy and its importance, component, and basic skills to improve self-efficacy • Discuss problem solving skills and positive self-talk.
Seventh session	• Train the nurses on rational thinking and practice positive thinking in daily life • Identify irrational thoughts about the self. • Distinguish between negative thoughts that lead to low self-efficacy and positive thoughts that increase self-efficacy.
Eighth and ninth sessions	• Define resilience, its importance, and practical steps and strategies of resilience. • Train nurses to control workplace ostracism by using resilience e.g. how do you talk to a colleague that ostracism you? and how to use SDP (stop-calm-treat) method to manage emotions and feelings,
Ten Session (evaluation phase).	• Conclude the educational program • Answering questions • Collect post-test

Validity of the Instruments

A peer review group comprising five academic professors with expertise in mental health nursing, family and community health nursing, psychiatric medicine and nursing administration evaluated the clarity, relevance, and comprehensiveness of the instruments' face validity and content validity. Based on the committee's input, modest adjustments were implemented.

Reliability of the Instrument

Internal consistency and test-retest reliability with a two-week gap were used to determine the checklist's dependability. The Cronbach Alpha reliability for the Workplace Ostracism scale (WOS) was 0.93, and the composite reliability coefficient was 0.95. The Cronbach's alpha reliability for the psychological well-being scale was 0.86, which indicated acceptable reliability.

Pilot Study

Pilot research was applied to evaluate the instruments' feasibility and clarity, besides determining how long it would take to fill them. Ten percent of the recruited sample was included in the pilot study and then excluded from the study.

Statistical Analysis

Statistical analysis was conducted utilising SPSS version 19 (SPSS, Inc., Chicago, Illinois, USA). The examination of data normality was carried out employing the Shapiro-Wilk test in conjunction with histogram analysis. The unpaired Student's t-test, Mann-Whitney U test, and Wilcoxon signed-rank test were implemented for comparative analysis. The result was deemed statistically significant if the two-tailed P value was less than 0.05.

Ethical Consideration

The present study received ethical approval from the Research and Ethics Committee of Faculty of Nursing in Menoufia University, Egypt with reference number IRB#902 on 17th August 2022. Each nurse was informed about the aim of the study and ensured that the subjects' identity and confidentiality are protected. The researchers informed the nurses that their participation in the study is entirely voluntary and that they had the option to quit at any time.

RESULTS

The highest percentage were married women who were between the ages of 30 and 40 and had a bachelor's degree in nursing. Regarding their years of experience, the highest percentage (54%, 46%) of both groups worked from five to ten years, respectively. Moreover, the highest percentage of both groups was from rural areas and working at psychiatric mental health units. Regarding satisfaction with the nature of the work environment, the highest percentages (78%, 62%) of both groups were unsatisfied. There was no notable discrepancy observed between the two cohorts concerning all demographic attributes (Table 2).

Table 2: Socio Demographic Characters

Socio Demographic Characters	Study (N= 50)		Control (N=50)		X^2	P Value
	No.	%	No.	%		
Age / years						
20 - < 30	19	38.0	14	28.0	3.63	0.163
30 - <40	23	46.0	20	40.0		
≥40	8	16.0	16	32.0		
Sex						
Male	20	40.0	14	28.0	1.60	0.205
Female	30	60.0	36	72.0		
Residence						
Rural	28	56.0	26	52.0	0.161	0.688
Urban	22	44.0	24	48.0		
Marital Status						
Single	20	40.0	14	28.0	2.32	0.508
Married	27	54.0	33	66.0		
Widowed	2	4.00	1	2.00		
Divorced	1	2.00	2	4.00		

Educational Level						
Diploma of nursing	7	14.0	12	24.0	4.59	0.332
Technical institute of nursing	15	30.0	16	32.0		
Bachelor of nursing	21	42.0	19	38.0		
Master's degree	4	8.00	3	6.00		
M.D degree	3	6.00	0	0.00		
Job Title						
Head nurse	11	22.0	12	24.0	0.056	0.812
Staff nurse	39	78.0	38	76.0		
Income						
Enough	33	66.0	40	80.0	2.48	0.115
Not enough	17	34.0	10	20.0		
Working Units						
Critical care	12	24.0	11	22.0	0.843	0.933
Haemodialysis	6	12.0	9	18.0		
Emergency	11	22.0	9	18.0		
Medical	8	16.0	8	16.0		
Psychiatric mental health	13	26.0	13	26.0		
Experience Years						
Less than five	15	30.0	12	24.0	2.78	0.249
Five to ten years	27	54.0	23	46.0		
≥ ten years	8	16.0	15	30.0		
Satisfied With Work Environment						
Yes	11	22.0	19	38.0	3.04	0.081
No	39	78.0	31	62.0		

There was significant variance among pre- and post-intervention among both groups as regards psychological capital domains (self-efficacy, resilience, hope, optimism, total psychological capital) with highly statistically significant improvement ($p < 0.001$) among the study group pre- and post-intervention (Table 3).

Table 3: Psychological Capital Domains Pre and Post Intervention

Psychological Capital Domains		Study (N= 50) M ±SD	Control (N=50) M ±SD	Mann Whitney test P value
Self-efficacy	Pre	8.00 ±1.59	8.58 ±1.90	1.39 0.163
	Post	14.5 ±3.87	8.78 ±1.26	6.45 **0.001***
Wilcoxon test **P value**		5.99 **0.001***	1.32 0.190	
Hope	Pre	8.46±2.04	8.72±2.12	0.776 0.438
	Post	12.5±2.94	8.80±1.88	5.99 **0.001***
Wilcoxon test **P value**		5.87 **0.001***	0.993 0.321	
Resilience	Pre	8.28±1.71	8.80±1.80	1.38 0.165
	Post	12.8±3.19	8.78±1.47	6.16 **0.001***
Wilcoxon test **P value**		5.86 **0.001***	0.348 0.728	
Optimism	Pre	9.14±2.39	9.39±2.32	0.581 0.561
	Post	15.0±4.38	10.1±2.91	5.47 **0.001***
Wilcoxon test **P value**		5.71 **0.001***	1.65 0.099	
Total psychological Capital	Pre	33.8±5.20	35.4±4.94	0.160 0.110
	Post	54.9±12.5	36.4±4.67	6.07 **0.001***
Wilcoxon test **P value**		6.04 **0.001***	1.20 0.230	

*Significant

There was significant variance among both groups as regards workplace ostracism domains following the intervention; a markedly statistically significant difference was observed ($p<0.001$). Among the study group, pre-and post-intervention, the level of workplace ostracism among the study group was decreased post-intervention compared to pre-intervention (Table 4). There was more than half (62%) of the study group that had a moderate level of workplace ostracism pre-intervention, while the highest percentage (78%) of the study group had a low level of workplace ostracism post-intervention, indicating the effectiveness of the intervention compared to the control group.

Table 4: Workplace Ostracism Domains Pre and Post Intervention

Workplace ostracism domains		Study (N= 50) M ±SD	Control (N=50) M ±SD	Mann Whitney test P value
Ostracism Perception	Pre	23.2±3.46	21.8 ±3.60	1.66 0.096
	Post	14.1±2.74	21.9±3.39	7.61 **0.001***
Wilcoxon test P value		6.10 **0.001***	1.42 0.154	
Personal Effect of Ostracism	Pre	22.1±3.72	22.5±3.62	0.443 0.658
	Post	12.1±3.62	22.6±3.58	8.63 **0.001***
Wilcoxon Test P value		7.74 **0.001***	1.2 0.185	
Total Workplace	Pre	45.4±5.01	44.3±6.26	0.708 0.479
	Post	26.2±2.67	44.5±5.51	8.59 **0.001***
Wilcoxon Test P value		6.15 **0.001***	0.808 0.419	

Significant

There was significant variance among both groups as regards CWB dimensions following intervention with a highly statistically significant difference ($p<0.001$) between the study group pre- and post-intervention, as the study group had lower counterproductive work behaviour post-intervention compared to pre-intervention (Table 5). Around two-thirds (70%) of study groups had low levels of counterproductive work behaviours post-intervention, indicating the effectiveness of the intervention in the study group compared to the control group.

Table 5: Counterproductive Work Behaviours Dimensions Pre and Post Intervention

Counterproductive work Behaviors Dimensions		Study (N= 50) M ±SD	Control (N=50) M ±SD	Mann Whitney test P value
Abuse toward others	Pre	35.8 ±4.97	33.8 ±7.00	1.86 0.062
	Post	20.7 ±5.64	32.7 ±7.20	6.95 **0.001***
Wilcoxon test P value		6.15 **0.001***	1.54 0.124	
Production deviance	Pre	٧.40 ±1.01	7.36 ±1.08	1.86 0.062
	Post	4.24 ±1.18	7.14±1.27	7.18 **0.001***
Wilcoxon test P value		6.29 **0.001***	0.856 0.392	
Sabotage	Pre	7.34±1.17	7.90±0.94	0.250 0.802
	Post	4.32±1.30	7.42±0.90	7.67 **0.001***
Wilcoxon test P value		6.33 **0.001***	1.11 0.266	

Theft	**Pre**	7.50±1.59	7.82±1.74	0.250 0.802	
	Post	5.36±0.72	7.98±1.49	7.67 **0.001***	
Wilcoxon test ***P* value**		5.88 **0.001***	0.656 0.512		
Withdrawal Capital	**Pre**	8.52±1.92	7.90±1.31	1.12 0.259	
	Post	5.88±1.99	7.68±1.03	4.55 **0.001***	
Wilcoxon test ***P* value**		5.77 **0.001***	1.22 0.222		
Total counterproductive work behaviours	**Pre**	66.6±6.64	64.8±7.23	1.18 0.238	
	Post	40.5±6.72	64.4±7.61	8.39 **0.001***	
Wilcoxon test ***P* value**		6.16 **0.001***	1.12 0.263		

Significant

There was significant variance among both groups as regards psychological well-being dimensions postintervention with highly statistically significant improvement ($P<0.001$) among the study group pre- and post-intervention, as the study group had a higher level of psychological well-being post-intervention compared to pre-intervention (Table 6). There was no one in the study group who had a moderate or high level of total psychological well-being pre-intervention, while half (50%) of the study group had a moderate level of total psychological well-being post-intervention, indicating the effectiveness of the intervention compared to the control group.

Table 6: Psychological Wellbeing Dimensions Pre and Post Intervention

Psychological Wellbeing		Study (N= 50) M ±SD	Control (N=50) M ±SD	Mann Whitney test *P* value
Autonomy	**Pre**	9.42±2.16	9.54±1.98	0.502 0.616
	Post	15.1±1.98	9.58±2.87	**5.58** **0.001***
Wilcoxon test ***P* value**		**5.82** **0.001***	0.024 0.838	
Environmental Mastery	**Pre**	9.68±1.89	9.64±2.00	0.133 0.895
	Post	14.6±2.53	9.02±1.28	**8.30** **0.001***
Wilcoxon Test ***P* value**		**6.17** **0.001***	1.41 0.158	
Self-Acceptance	**Pre**	9.14±1.49	9.70±1.33	1.87 0.060
	Post	12.3±2.66	9.60±1.67	5.01 **0.001***
Wilcoxon Test ***P* Value**		**5.62** **0.001***	0.274 0.784	
Personal Growth	**Pre**	9.42±1.27	9.58±1.67	0.16 0.892
	Post	14.0±1.54	9.40±2.59	**6.85** **0.001***
Wilcoxon Test ***P* value**		**6.19** **0.001***	0.639 0.523	
Purpose in Life	**Pre**	9.68±1.20	9.62±1.41	0.046 0.963
	Post	14.9±1.78	10.0±3.11	**5.63** **0.001***
Wilcoxon Test ***P* value**		**6.09** **0.001***	0.562 0.574	

Positive Relation with Others	**Pre**	8.96±1.60	9.20±1.44	1.25 0.210
	Post	15.3±1.20	9.08±1.83	**8.46** **0.001***
Wilcoxon Test ***P* value**		**6.17** **0.001***	0.729 0.466	
Total Psychological Wellbeing	**Pre**	55.9±6.38	58..0±4.14	1.33 0.182
	Post	86.6±8.71	57.9±8.20	**7.72** **0.001***
Wilcoxon Test ***P* value**		**6.16** **0.001***	0.323 0.746	

Significant

There was a significant positive correlation between psychological well-being and psychological capital of the studied group after the implementation of psychological capital (*P*<0.001). Additionally, there was a significant negative correlation among workplace ostracism, counterproductive work behaviours, and psychological well-being of nurses after implementation of psychological capital (*P*<0.05) (Table 7).

Table 7: Relationship Between Psychological Wellbeing and Psychological Capital, Workplace Ostracism, And Counterproductive Work Behaviours Post Intervention among the Study Group (n= 50)

Studied Variables	Total Psychological Wellbeing	
	R	***P* value**
Psychological Capital	**0.738**	**0.001***
Workplace Ostracism	-0.368	**0.009***
Counterproductive Work Behaviours	-0.629	**0.001***

Note: R=Spearman's correlation

There was a significant positive correlation between workplace ostracism and counterproductive work behaviours among nurses after the implementation of psychological capital (*P*<0.001) (Table 8). There was a significant negative correlation among workplace ostracism, psychological well-being, and psychological capital of nurses after implementation of psychological capital (*P*<0.05) (Table 8).

Table 8: Relationship between Workplace Ostracism, Psychological Capital, Counterproductive Work Behaviours, and Psychological Wellbeing Post Intervention among the Study Group

Studied Variables	Workplace Ostracism	
	R	***P* value**
Psychological Capital	-0.736	**0.001***
Counterproductive Work Behaviours	0.682	**0.001***
Total Psychological Wellbeing	-0.368	**0.009***

Note: R=Spearman's correlation

DISCUSSION

There was significant variance between the study group and the control group as regards both groups regarding the workplace ostracism domain post-intervention with the lowest (degree/score) in the study group. Chaman, Bhatti and Hussain (2021) agree with these results. They said that psychological capital has the most significant effect on the link between workplace ostracism and job outcomes (job stress and intention to leave) because lowering workplace ostracism leads to better job outcomes (lower job stress and intention to leave). Similarly, Yu *et al*. (2021) reported that increased levels of psychological capital predict a lower level of ostracism. Psychological capital is characterised by a positive orientation and can be enhanced through deliberate practice and systematic training. This research offers a valuable perspective to elucidate how human strengths can alleviate the adverse consequences of ostracism and diminish the likelihood of depression. Also, Basuny, Abd El-Rahman and Ashour (2024) stated that enhancing psychological capital might limit workplace ostracism and deviant workplace behaviour. From the researchers' point of view, having a high degree of positive psychological capital aids nurses in fending off professional exclusion and lessening its detrimental effects. The detrimental effects of workplace exclusion can be lessened by improving nurses' psychological capital through interventions like training courses.

There was significant variance among both groups as regards counterproductive work behaviour dimensions post-intervention. Additionally, there was significant variance between pre- and post-intervention within the study group regarding counterproductive work behaviour dimensions, as the study group had lower scores post-intervention compared to the pre-intervention scores. This finding is supported by Amin et al. (2022), who mentioned that there was a statistically significant decrease in overall counterproductive work behaviour levels following the psychological capital intervention approach. Moreover, Butt and Yazdani (2021) stated that psychological capital is a crucial coping tool for dealing with incivility and authority counterproductive work behaviour. It had a negative association with counterproductive work behaviours as psychological capital results in decreasing the meaning of counterproductive work behaviours. This agreed with Basuny, Abd El-Rahman and Ashour (2024), who showed that employees with psychological capital have a positive job performance and a lower level of counterproductive work behaviours. From the perspective of the researcher, psychological capital in the workplace not only decreases workers' undesirable behaviour (counterproductive work behaviours), but it also fosters higher-performing people with organisational loyalty, dedication, and good organisational citizenship behaviour reflections.

There was significant variance between both groups as regards psychological well-being dimensions post-intervention. Nurses had higher scores in psychological well-being post-intervention than pre-intervention. In agreement with the supporting influence of psychological capital on psychological well-being, a study by Kurt and Demirbolat (2019) reported the importance of psychological capital in enhancing satisfaction and psychological well-being cannot be overstated. Furthermore, this result supported by the findings of Roemer & Harris (2018) stated that the implementation of psychological capital intervention positively affects psychological well-being by increasing it. Also, the relationship showed that psychological capital and psychological well-being are strongly correlated. Psychological capital is a significant and positive predictor of well-being, leading to an increase in its level. This highlighted the need to implement programs that strengthen each individual's psychological capital to prevent burnout and achieve a higher level of psychological well-being.

There was a significant positive correlation between psychological capital and psychological well-being. On the other hand, there was a negative correlation among psychological capital, workplace ostracism, and counterproductive work behaviours of the studied group after the implementation of psychological capital. This was consistent with the study by Amin *et al*. (2022), who concluded that psychological capital is a higher-order concept consisting of four assets. Optimism, hope, self-efficacy, and resiliency—and expanding the psychological capital domains—correlated positively with psychological well-being and work-related flow. Both psychological well-being and flow predicted employee creativity and were negatively correlated with workplace ostracism, leading to counterproductive work behaviours.

Limitation

There are several limitations in this study. The researchers used a quasi-experimental design, which lacks randomisation and may increase the risk of selection bias. Future studies could address this limitation by conducting an experimental design. The use of non-probability sampling limits the generality of the results. Future research could consider leveraging probability sampling methods to enhance the applicability of findings across diverse settings. Ultimately, the study was conducted at a single hospital in one region of Egypt, which limits the generalizability of the findings to other healthcare settings or regions. Future studies could overcome this limitation by incorporating several hospitals across various locations in Egypt, ensuring a representative understanding of the intervention's effects.

Conclusion

The results showed a positive correlation between psychological capital and psychological well-being and a negative correlation among psychological capital, workplace ostracism, and counterproductive work behaviours in the study group after the intervention. Hence, it can be concluded that the implementation of Luthans's psychological capital intervention effectively manages nurses' workplace ostracism, and it is associated with counterproductive work behaviours that could enhance nurses' psychological well-being.

Future research should focus on conducting longitudinal studies to evaluate the long-term effects of

PsyCap interventions on workplace ostracism, counterproductive work behaviours (CWBs), and psychological well-being, providing insights into their sustainability and impact over time. Additionally, exploring how PsyCap interventions can be adapted to address unique cultural challenges will enhance their effectiveness across diverse work environments. Qualitative research methods should also be utilised to gain a deeper understanding of how PsyCap influences workplace ostracism, CWBs, and psychological well-being from employees' perspectives. Furthermore, investigating the relationship between psychological capital and other work-related variables will contribute to a broader understanding of its role in workplace dynamics and employee performance.

Recommendation

Integrating Luthans's Psychological Capital (PsyCap) model into undergraduate nursing curricula is crucial for equipping students with the necessary psychological resources to navigate the demands of the workforce effectively. Additionally, implementing PsyCap programs in clinical settings can strengthen the psychological resilience and overall well-being of nurses, enabling them to cope better with workplace challenges and improve their professional performance.

Conflicts of Interest

The authors declare that they have no competing interests.

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REFERENCES

Abbott, R. A., Ploubidis, G. B., Huppert, F. A., Kuh, D., Wadsworth, M. E., & Croudace, T. J. (2006). Psychometric evaluation and predictive validity of Ryff's psychological well-being items in a UK birth cohort sample of women. *Health and Quality of Life Outcomes, 4*, 1-16. https://doi.org/10.1186/1477-7525-4-76

Abd Allah Mohamed, N. A. A., Yassein Hussein, N. H., & Mohamed, S. H. (2021). The Relationship between workplace civility climate and workplace ostracism among staff nurses. *Assiut Scientific Nursing Journal, 9*(27), 21-29. https://doi.org/10.21608/asnj.2022.103552.1253

Ali, I., Khan, M. M., Shakeel, S., & Mujtaba, B. G. (2022). Impact of psychological capital on performance of public hospital nurses: the mediated role of job Embeddedness. *Public Organization Review, 22*(1), 135-154. https://doi.org/10.1007/s11115-021-00521-9

Amin, A., Shahnawaz, M. G., Imran, M., Rehman, U., Kamra, A., & Osmany, M. (2022). Revisiting and Expanding Psychological Capital: Implications for Counterproductive Work Behaviour. *Trends in Psychology*, *32*(2). https://doi.org/10.1007/s43076-022-00205-3

Basuny, H. F. S., Abd El-Rahman, R. M., & Ashour, H. M. A. (2024). The Relationship between Workplace Ostracism and Nurses Perception of Counterproductive Work Behaviors. *International Journal of Novel Research in Healthcare and Nursing, 11*(1), 1-16. https://doi.org/10.5281/zenodo.10489628

Bogler, R., & Somech, A. (2019). Psychological capital, team resources and organizational citizenship behavior. *The Journal of Psychology, 153*(8), 784-802. https://doi.org/10.1080/00223980.2019.1614515

Butt, S., & Yazdani, N. (2021). Influence of workplace incivility on counterproductive work behavior: Mediating role of emotional exhaustion, organizational cynicism and the moderating role of psychological capital. *Pakistan Journal of Commerce and Social Sciences, 15*(2), 378-404. Retrieved from: https://hdl.handle.net/10419/237082, Accessed on 8th July, 2024

Chaman, S., Bhatti, I., & Hussain, A. (2021). Dealing with workplace ostracism: The role of psychological capital and

political skill in employee job outcomes. *International Journal of Business and Management Sciences, 2*(4), 75-87. Retrieved from: https://www.ijbms.org/index.php/ijbms/article/view/89/82, Accessed on 20ᵗʰ August, 2023

Ciampa, V., Sirowatka, M., Schuh, S. C., Fraccaroli, F., & van Dick, R. (2021). Ambivalent identification as a moderator of the link between organizational identification and counterproductive work behaviors. *Journal of Business Ethics, 169*, 119-134. https://doi.org/10.1007/s10551-019-04262-0

Elliethey, N. S., Abou Hashish, E. A., & Elbassal, A. M., (2024). Work ethics and its relationship with workplace ostracism and counterproductive work behaviours among nurses: a structural equation model. *BMC Nursing, 23*(1), 126. https://doi.org/10.1186/s12912-024-01785-4

Ferris, D. L., Brown, D. J., Berry, J. W., & Lian, H. (2008). The development and validation of the Workplace Ostracism Scale. *Journal of Applied Psychology, 93*(6). https://doi.org/10.1037/a0012743

Filipkowski, J., & Derbis, R. (2020). The dark triad, goal achievement and work engagement as predictors of counterproductive work behaviors among IT employees. *Current Issues in Personality Psychology, 8*(3), 197-210. https://doi.org/10.5114/cipp.2020.100095

Flinkman, M., Coco, K., Rudman, A., & Leino-Kilpi, H. (2023). Registered nurses' psychological capital: A scoping review. *International Journal of Nursing Practice, 29*(5). https://doi.org/10.1111/ijn.13183

Gürlek, M. (2021). Workplace ostracism, syrian migrant workers' counterproductive work behaviors, and acculturation: Evidence from Turkey. *Journal of Hospitality and Tourism Management, 46*, 336-346. https://doi.org/10.1016/j.jhtm.2021.01.012

Köse, S. D., Köse, T., & Uğurluoğlu, Ö. (2018). The antecedent of organizational outcomes is psychological capital. *Health & Social Work, 43*(3), 155-164. https://doi.org/10.1093/hsw/hly020

Kurt, N., & Demirbolat, A. O. (2019). Investigation of the Relationship between psychological capital perception, psychological well-being and job satisfaction of teachers. *Journal of Education and Learning, 8*(1), 87-99. https://doi.org/10.5539/jel.v8n1p87

Luthans, F., Avey, J. B., Avolio, B. J., Norman, S. M., & Combs, G. M. (2006). Psychological capital development: Toward a micro-intervention. Journal of Organizational Behavior: *The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 27*(3), 387-393. https://doi.org/10.1002/job.373

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*, 541–572. https://doi.org/10.1111/j.1744-6570.2007.00083.x

Meisler, G., Drory, A., & Vigoda-Gadot, E. (2020). Perceived organizational politics and counterproductive work behavior: The mediating role of hostility. *Personnel Review, 49*(8), 1505-1517. https://doi.org/10.1108/PR-12-2017-0392

Movahedi, D., Oudi, D., & Rad, G. H. M. (2018). Effectiveness of the luthans's psychological program on job engagement of nursing staff. *Modern Care Journal, 15*(3). https://doi.org/10.5812/modernc.83227

Riskin, A., Bamberger, P., Erez, A., Foulk, T., Cooper, B., Peterfreund, I., & Bamberger, E. (2019). Incivility and patient safety: A longitudinal study of rudeness, protocol compliance, and adverse events. *The Joint Commission Journal on Quality and Patient Safety, 45*(5), 358-367. https://doi.org/10.1016/j.jcjq.2019.02.002

Roemer, A., & Harris, C. (2018). Perceived organizational support and well-being: The role of psychological capital as a mediator. *SA Journal of Industrial Psychology, 44*(0). https://doi.org/10.4102/sajip.v44i0.1539

Sabir, M. R., Majid, M. B., Aslam, M. Z., Rehman, A., & Rehman, S. (2024). Does workplace ostracismce lead to counterproductive work behavior in healthcare employees: the role of transactional and relational psychological

contract breach. *Cogent Business & Management, 11*(1). https://doi.org/10.1080/23311975.2024.2325337

Spector, P. E., Fox, S., Penney, L. M., Bruursema, K., Goh, A., & Kessler, S. (2006). The dimensionality of counterproductivity: *Are all counterproductive behaviors created equal? Journal of Vocational Behavior, 68*(3), 446-460. https://doi.org/10.1016/j.jvb.2005.10.005

Youn, J. X. (2024). *Psychological capital and innovative behaviour among university academics in Malaysia: The mediating effect of individual psychological safety* (Doctoral dissertation, UTAR). Retrieved from: http://eprints.utar.edu.my/6601/1/21AAM00617_DIS.pdf, Accessed on 25th September, 2023

Yu, X., Zhang, L., Lin, Z., Zhou, Z., Hazer-Rau, D., Li, P., ... & Wu, T. (2021). Ostracism, psychological capital, perceived social support and depression among economically disadvantaged youths: a moderated mediation model. *International Journal of Environmental Research and Public Health, 18*(21). https://doi.org/10.3390/ijerph182111282

Zhu, Y., & Zhang, D. (2021). Workplace ostracism and counterproductive work behaviors: the chain mediating role of anger and turnover intention. *Frontiers in Psychology, 12*. https://doi.org/10.3389/fpsyg.2021.761560.