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**The Relationship Between Psychological Capital and Job
Performance Among Nurses**

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*“It is not how much you do,
but how much love you put in the doing”.*

Mother Teresa

Abstract

The nursing job has always been physically and emotionally challenging. Nurses as a in front line health care providers, have a direct impact on patients and it is vital to do their jobs as best as possible. Therefore, increasing job performance should be under consideration. There are many ways to increase job performance such as lower working hour, better income, and increasing psychological capital. Several articles have argued the effect of psychological capital associated with several workplace outcomes. There is a growing interest for researchers to study about if psychological capital is a truly measurable aspect associated with several workplace outcomes such as absence from work, job performance, and job satisfaction or not.

This thesis is a literature review with aimed to investigate the relationship between psychological capital and job performance among nurses and importance of other variables in the relationship between these two.

Findings of the review seems to suggest that there is a positive relationship between psychological capital and its components such as self-efficacy, hope, optimism, and resilience and job performance, except for one study which has indicated that resilience and job performance are not related. In addition, findings support the role of age and job embeddedness in the relationship between psychological capital and job performance. This thesis also suggests conducting a longitudinal study to assess the relationship between psychological capital and job performance, and given importance of mediating and moderating variables in future studies.

Keywords: *positive psychology, work outcome, health care providers, human resource development.*

Abbreviations

PsyCap	Psychological Capital
POB	Positive Organizational Behavior
HRD	Human resource development
CR	Composite reliability

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Introduction

The nursing job has always been physically and emotionally challenging. Heavy workloads, low income, anxiety, depression, and stress are common issues in the nursing job that result in burnout, reduction in psychological well-being and lower level of job performance. Nurses as a in front line health care providers, have a direct impact on patients and it is vital to do their jobs as best as possible. Therefore, increasing job performance should be under consideration. There are many ways to increase job performance such as lower working hour, better income, and increasing psychological capital. Several articles have argued the effect of psychological capital associated with several workplace outcomes, for instance, absence from work, job performance, and job satisfaction. Luthan et al defined PsyCap as “an individual’s positive psychological state of development characterized by self-efficacy, hope, optimism and resilience”.

Several scholars argue that there is a positive relationship between PsyCap and job performance while some researchers have not confirmed this declaration. Hence, I have conducted this literature review study to investigate the relationship between psychological capital and job performance, the importance of psychological capital for variation in job performance among nurses and the validity, reliability, and generalizability of the relationship between psychological capital and job performance.

1.1 Objectives

The study's objective is to investigate the relationship between psychological capital and job performance, the importance of psychological capital for variation in job performance among nurses, and certainty on the validity, reliability, and generalizability of the relationship between psychological capital and job performance.

1.2 Research questions

This objective is operationalised through the following key questions.

1. Is there any relationship between nurses' psychological capital and job performance?
2. How vital psychological capital may be for understanding variations in job performance based on the empirical studies that have been done so far?

1.3 Structure of the study

This study is classified into six sections which are as follows.

Section one provides the introduction to the study, the research questions, and background. Section two presents the theoretical underpinnings upon which the work is based, the purpose of the study. Section three presents the study's methodology, and section four presents the study's findings, detailed review of the six studies. The fifth section provides the discussion, limitation of the study, and suggestion. Section six offers the conclusion of the study.

1.4 Background

According to the suggestion of a resource-based theory of the firm, the maximum use of human capital plays a considerable role in competitive benefit because it can be challenging for competitors to imitate. This resource-based view has resulted in significant interest in the human resource development (HRD) field concentrated on assessing the value and human capital's impact on organisational performance. (F. Luthans, Avey, Avolio, & Peterson, 2010).

But regardless of the micro-foundations (of resources and abilities) movement, the underlying mechanisms of attaching human capital to competitive advantage are still unanswered. The micro-foundations movement works to understand better people, such as their distinctive preferences, psychological models, and motivations, to recognise people-based benefits better'. It means that a firm can achieve more considerable economic value compared to its competitors due to taking advantage of employees' knowledge, expertise, and capacity. For instance, to create greater rents for the firm via human capital, organisational participants must be encouraged to use their human capital first and then use it to progress valuable routines and capacities (Newman, Ucbasaran, Zhu, & Hirst, 2014).

Psychological capital is one of the strategic resource methods that many scholars have been interested in for its impact on human performance (Newman et al., 2014). Its idea is rooted in positive psychology. Positive psychology was introduced to organisational behaviour with Seligman and colleagues' effort in the late 1990s. (Cavus & Gokcen, 2015). Positive psychology is a subject that concentrates on developing individuals' positive characteristics and positive experiences and on improving their mental health through programs that accelerate subjective well-being. Positive psychology's domain includes considerable personal emotions associated with the past (for instance, well-being, pleasure, and satisfaction), the present (for instance, health and happiness), and the future (for instance, hope and optimism) (Durukan Köse, Köse, & Uğurluoğlu, 2018). They focused on studying and recognising an individual's well-being, efficiency, and perfect effectiveness. It also determines an individual's full potential (F. Luthans & Youssef-Morgan, 2017).

"positive psychology" led to the introduction of the "Positive Organizational Behaviour (POB)" approach (Cavus & Gokcen, 2015), which refers to "positive human strengths applicable to the

workplace that are measurable, impactful on performance and open to development" (Dawkins, Martin, Scott, & Sanderson, 2015).

With the introduction of positive psychology, numerous researchers recommended the importance of expanding research on the workers' resources (psychological capital, the perception of the management and organisational support, job compliance). These assets are helpful to address workings matters and promote well-being. Among these resources, scholars have taken PsyCap seriously from a work perspective. There is a growing interest for researchers to study about if psychological capital is a truly measurable aspect associated with several workplace outcomes such as absence from work, job performance, and job satisfaction or not (Di Maggio, Ginevra, & Nota, 2021).

2 Theoretical and Conceptual frameworks

2.1 Psychological Capital:

Several writers and researchers have used the terms psychological capital and positive psychological capital synonymously (Cavus & Gokcen, 2015). Psychological capital (PsyCap) is an upper-order POB construct (Dawkins et al., 2015); it emphasises positive attitudes, values, and outcomes (Cavus & Gokcen, 2015). Luthans and colleagues differentiated PsyCap from other types of people-related capital, such as human and social capital. Human capital refers to “an individual’s stock of knowledge, skills and abilities that can be increased by experience and investment in education and training”. Social capital’s concept is made from sociology and “and relates to the aggregate of the actual or potential resources that are linked to the possession of a durable network of relationships of mutual acquaintance and recognition”. In other words, human capital and social capital is involved with ‘what you know, ‘who you know’ respectively. PsyCap is concerned with ‘who you are and ‘who are you becoming’ your ‘best self’ (F. Luthans et al., 2010; Newman et al., 2014).

Luthans and his colleagues set up several inclusion criteria. They point out that it must be based on theory or research, has “valid measures”, and must be “state-like” (as opposed to “trait-like”). Describing for what trait- and state like is, is that “state and trait realistically fall along a continuum”. At the end of one side of the continuum are traits which are fixed traits. An example of fixed characteristics is heritage characteristics and talents. Next on the continuum are trait-like variables such as the big five personality dimensions, and positive affectivity which is hard to change. In contrast to these, there are states of hope, efficiency, resilience, and optimism. The emotional states and moods are easily changeable. It is known that PsyCap is measurable and can be changed and developed over time (B. C. Luthans, Luthans, & Avey, 2014).

State-like characteristics are open to developing through training and “intentional practise” (U. Kappagoda, Othman, Zainul, & Alwis, 2014; Newman et al., 2014). According to thesis criteria, PsyCap refers to “an individual's positive psychological state of development, characterised by the psychological resources of self-efficacy, hope, optimism, and resilience” (Dawkins et al., 2015). Those four ingredients are supposed to reveal a motivational tendency to achieve organisational goals (Cavus & Gokcen, 2015).

2.1.1 Efficacy

Efficacy has been the first and the most theoretically developed and studied among all ingredients of PsyCap. Stajkovic and Luthans (1998) define the concept of self-efficacy relevant to the workplace as person's confidence of his or her abilities to make ready for the motivation, cognitive capitals, and a way of actions necessary to effectively perform a specific task within a certain context (Stajkovic & Luthans, 1998). The efficacy concept originated in Bandura's (1997) social cognitive theory, an attitude for understanding human cognition and motivational action. It is supposed that we are active actors to interact with our environments, not passive reactors. Bandura (1982) defined self-efficacy as a person's perception or belief of "how well one can execute courses of action required to deal with prospective situations (Bandura, 1982, p. 122)."

Kappagoda et al. (2014) in their study argued that Bandura also defined self-efficacy (1986) as "people's judgments of their capabilities to organise and execute courses of action required to attain designated types of performances" (U. Kappagoda et al., 2014, p. 144).

2.2.2 Hope

According to Snyder and colleagues (1991), hope is defined as a positive motivational state based on an interactively derived sense of successful (a) agency (goal-directed energy) and (b) pathways (planning to meet goals) (Charles R Snyder et al., 1991). Based on this definition, hope consists of two components: 1) Agency, which is internal intention to follow goals and 2) Pathways, which is the "way power" or capability to produce the second plan to pursue goals when hindrances hamper plans. Hope is initiated in Snyder's extensive theory-building and research and has been used in several life aspects (F. Luthans & Youssef-Morgan, 2017). In addition, Snyder argues that both agency and pathway are interconnected and work in a mixed, iterative way to make hope (U. Kappagoda et al., 2014).

2.2.3 Optimism

Generally, an optimist is an individual who thinks positive and expects to happen good things, whereas a pessimist expects to occur worse things. Optimism has a special meaning in positive psychology. Optimism is defined as meaning a desire or expectation to achieve the ideal and hopeful results that positively affect psychological and physical health. This is assumed to allow people to create their lives more simple and without stress (Cavus & Gokcen, 2015). Two theoretical models have been used to define optimism: Seligman's explanatory style model and Carver and Scheirer's self-regulatory model. Scheier and Carver (1985) described dispositional optimism as "any activity related to goal attainment and self-regulation". Based on the definition, when individuals know a discrepancy between the desired goal and actual condition, they access the process. If the individuals know that this discrepancy can be diminished, they will work more to attain the expected results. But if they think that they cannot manage the difference, they let it go. Based on this statement, optimists try to solve the problem by exerting more effort and going on. On the other side, pessimists quit the situation. Seligman (1998), "with his complementary optimistic framework based on attribution defines optimism as an explanatory style in which individuals attribute positive events to internal, stable, global causes, and attribute negative events to external, unstable, specific causes"(U. Kappagoda et al., 2014, p. 145).

2.2.4 Resilience

Luthans defined resilience as "the capacity to rebound or bounce back from adversity, conflict, failure or even positive events, progress and increased responsibility" (F. Luthans, 2002). According to the definition, resilience is a positive power to cope with unpleasant and desirable situations. Cavus and colleagues, in their studies, pointed out that resiliency refers to a propensity to overcome a difficult or miserable problem, allows people to consider the overwhelming conditions positively (Cavus & Gokcen, 2015).

2.2 Job performance

Employee's job performance is crucial in organisational management. Finding the best possible method to increase employees' motivation and job performance is the main goal of every

organisation (Inuwa, 2016). Weak performance in governmental organisations leads to failure in providing public legal service, and in private sectors may result in economic bankrupting. On the other hand, positive performance raises organisation productivity, improves national finance, and develops the quality of proposed services (Jalali & Heidari, 2016).

Employees' psychological capabilities may be significant in being motivated and, as a result, improving job performance (Jung & Yoon, 2015). Since employee health plays an essential role in organisational productivity, it is necessary to implement programs and investments to preserve and promote employees' health (Armandi, Aghadavood, & Davoodi, 2015).

Campbell, McHenry, & Wise (1990) defined job performance as “the observable behaviours that people do in their jobs relevant to the organisation's goals”. According to Motowidlo, Borman and Schmit (1997), job performance is defined as “behaviours or activities that are oriented towards the organisation's goals and objectives”(U. Kappagoda et al., 2014).

2.3 Studies about the relationship between PsyCap and job performance in general

The relationship between PsyCap and job performance has been studied on different occupations and careers. There are two types of the literature I reviewed in terms of the relationship between PsyCap and job performance with two of them studying the job performance in general and the other six focusing more on the topic of job performance in nurses. As illustrated in the introduction, Luthans is one of the founders of the PsyCap approach. It may therefore be fruitful to first consider which empirical approach he and his co-authors have chosen to empirically investigate the relationship between PsyCap and job performance.

By comparing the relationship between PsyCap and job performance in general with the nurses, in the nursing practicing contexts, there might be many other factors playing a crucial role in the relationship between PsyCap and job performance including the facilities, equipment, governmental medical supply for the public health. A possible difference in job performance among workers in general versus nurses is the high levels of psychological demanding in practicing nursing (Nasurdin, Ling, & Khan, 2018).

2.3.1 The Psychological Capital of Chinese Workers: Exploring the Relationship with Performance.

Luthans and co-authors have conducted a cross-cultural study investigating the association between Chinese workers' positive states and overall psychological capital with their performance in 2005. Data were collected through standardised questionnaires on psychological capital and job performance rated by supervisors from a sample of 422 Chinese workers in three factories (two private and one state-owned) (F. Luthans, Avolio, Walumbwa, & Li, 2005).

Results revealed that three of workers' PsyCap items: hope, optimism, and resiliency were significantly correlated with their performance (F. Luthans et al., 2005).

On the limitation part, the authors have noted that job performance was measured by supervisors. This might not reflect actual level of performance of the participants. The authors emphasised the role of "connection" or 'guanxi' in China which can affect the results. Guanxi means having personal relationship with someone which involve moral commitments and trading favours. In addition, accessing to the technology utilizations was not the same among workers, this also can affect job performance level. Another important limitation in this study was that it was a cross-sectional study. The authors assume that PsyCap can develop and change over the time. Hence, a longitudinal study that examines performance level in different points of time would assist to derive eventual causality between PsyCap and job performance. Lastly, the authors mention the role of mediate and moderate in the relationship between PsyCap and job performance (F. Luthans et al., 2005).

2.3.2 Psychological capital and job performance: empirical research of certified public accountants (CPAs) in Thailand.

In order to the last limitation the (F. Luthans et al., 2005) which is mentioned above, I will review (Saithong-in & Ussahawanitchakit, 2016) study which is about the effect of psychological capital on job performance via three mediating influences: job enthusiasm, job commitment, and job competency.

This study has conducted in Thailand and data was collected from Certified Public Accountants (CPAs) by mailing questionnaires. Ordinary least square regression was used when analysing the data (Saithong-in & Ussahawanitchakit, 2016).

In total, 102 complete questionnaires were collected. In this research, job performance was considered as a dependent variable, the four constructs of PsyCap as independent variables, and job enthusiasm, job competency, and job commitment were analysed as mediators. Age, Gender, and Experience were control variables. In this study, dependent, independent and mediating variables were measured by a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) while dummy variables for age, including 0 (less than or equal to 35 years), and 1 (more than 35 years); for gender, 0 (male), and 1 (female); and for experience, 0 (less than or equal to 10 years), and 1 (more than ten years) (Saithong-in & Ussahawanitchakit, 2016).

The analysis of the data showed that just one of the four dimensions of PsyCap (resilience) had a positive effect on job enthusiasm, job competency, job commitment, and job performance. Moreover, job enthusiasm and job competency positively influenced job performance.

Limitations of this study was having small sample size due to limitation in time. Therefore, the authors suggest future research for a more extended period (Saithong-in & Ussahawanitchakit, 2016).

On the next sub-section, I will portray the importance of studying the relationship between PsyCap and job performance on nurses.

2.4 Importance of studying on nursing job

The nursing shortage is a global crisis that many countries are faced with (Buchan, 2002; Sun, Zhao, Yang, & Fan, 2012b). Also, an ageing population and longer life expectancies reveal that it needs more healthcare services in future than to date (K. W. Luthans & Jensen, 2005). Besides, the care offered to patients is also directly affected by the nursing shortage (K. W. Luthans & Jensen, 2005). The nursing shortage crisis and the need for healthcare providers are being developed over time. Retaining nurses in job is an important issue in the developing countries (Oulton, 2006).

Nursing has always been physically and emotionally challenging (Khuhro, Jantan, Zawawi, & Ali, 2019). Nurses interact a lot of time with patients (Ding et al., 2015). They have to cope with heavy workloads, often limited job autonomy, and users' behavioural and health issues. All of the mentioned issues and long working hours can accelerate burnout among nurses (Di Maggio et al., 2021). Nurses' burnout affects nurses' mental health and negatively affects caring efficacy (Di Maggio et al., 2021; Ding et al., 2015). This may lead to lower job performance, reduced psychological well-being, and leaving a job (Ali, Khan, Shakeel, & Mujtaba, 2021; Khuhro et al., 2019). Developing PsyCap might aid healthcare organisations to boost safer professional standards, improve work commitment and increase highly skilled nurses' retention (Boamah & Laschinger, 2015).

2.5 The purpose of the study

Some scholars argue that a high level of PsyCap contributes employees to performing their duties better (U. S. Kappagoda, Othman, & De Alwis, 2014; F. Luthans et al., 2005). At the same time, as shown with regard to Saithong-in et.al. 2016 above, not all studies confirm a positive relationship between job performance and psychological capital (Durrah, Al-Tobasi, Ashraf, & Ahmad, 2016; Saithong-in & Ussahawanitchakit, 2016). Therefore, this study is designed to investigate the relationship between psychological capital and job performance and the importance of psychological capital for variation in job performance among nurses, and validity, reliability of the measurements and generalizing power to the population in the studies included.

3 Methodology

This is a literature review of previous research studies on the relationship between PsyCap and job performance among nurses: Studies on if there is a positive relationship between PsyCap and job performance and the importance of psychological capital for variation in job performance among nurses, and certainty of the validity, reliability, and generalizability of the relationship between psychological capital and job performance.

A literature review gathers the prior literature in a theme (Rowley & Slack, 2004) and it is a vital element of any academic research (Webster & Watson, 2002). The objective of the literature review is to “summarize state of the art in that subject field. From this review of earlier and recent work, it becomes possible to identify areas in which further research would be beneficial”(Rowley & Slack, 2004, p. 32). An efficient review builds a strong base for advancing knowledge. It simplifies theory progress, connects fields where a “plethora of research exists”, and reveals areas where “research is needed” (Webster & Watson, 2002). A literature review is suitable for this thesis with providing an insight into the existing state of academic research on the relationship between psychological capital and job performance and the importance of psychological capital for variation in job performance among nurses. I will take a look at the certainty of the validity, reliability, and generalizability of the studies I have collected. This section portrays the search strategy, selection criteria, data extraction and synthesis approach.

3.1 literature search strategy

The search was performed between April and May 2020. The study was started on 3rd October 2021. The literature research was conducted by the study of the research questions.

The first research question is, ‘What is the relationship between psychological capital and job performance?’

The second (related) research question is ‘How important is psychological capital for understanding variations in job performance?’

Relevant studies for the two research questions were identified by searching electronic academic databases and official websites of relevant organisations for primary research studies. The databases searched consist of Oria, academic search ultimate, Social Science Citation Index. Reference lists of the selected articles were used to check for more relevant studies. The search was limited to English language studies.

The search terms used include psychological capital, job performance, and nurs*. I have also used synonyms to broaden the search: job-related outcome, healthcare providers, positive psychology.

3.2 Selection criteria

The selection criteria for studies on the PsyCap and Job Performance was a detailed assessment of retrieved articles. The studies were evaluated for quality and relevance. Studies were included if they were based on primary empirical data, if they provided an improved understanding the relationship between PsyCap and job performance among nurses, and if the methods, findings, and analysis seemed comprehensive enough to give a solid foundation for the conclusions.

3.10.21 at 1 pm, I started my work. After identifying the research question, I chose keywords based on the research questions. Keywords are psychological capital, job performance, and nurs*.

I started searching with “ORIA” and put my keywords in advanced search to find those articles that have these keywords in the title. Moreover, the selection criteria were English language articles and books. I found one book and six articles. The book was about psychological capital on nurses’ job stress, which was irrelevant to my research question. Among the papers, two papers were wholly related to my research questions, and the other ones were either had full text in Persian or were repetitive. I also read the “suggestions” part, which ORIA recommended, but judged from the titles they were not relevant to my research questions.

After that, I searched in the data base “Academic search ultimate” and chose “search all databases” to access all articles. I entered keywords, and three pieces were found. One seemed relevant, but on closer inspection it was about PsyCap implementation, so it was different from my research question. The two others were full text only in Persian and Chinese. I read the part “find similar result,” in Academic search ultimate and among them, one article was relevant.

The last resource was the Science Citation Index. I put keywords in the advanced search. I found just one repetitive article. I kept going to study the articles cited in that article. There were 76 articles in the citation's part. I found two pieces relevant. I checked the references of the studies to see more relevant articles but found none. I studied the rest of the cited articles and if there were any interesting articles, I have gone through them, cited- and reference's part. I studied the rest of the cited part, and I could find one relevant article.

In sum, I ended with six studies, which I describe in detail in the next chapter.

4 Analysis (the literature review)

4.1 Studies included:

A table with an overview of the six studies included (Table 4.1) with characteristics such as: Authors, year, method, measures, country, sample size and proportion of female nurses.

Table 4.1

Study	Method	Measures	Country	N	The proportion of female nurses
Nasurdin, A. M., Ling, T. C., & Khan, S. N. (2018)	Cross-sectional, quantitative study	<p>Self-efficacy adapted from (Chen, Gully, & Eden, 2001)</p> <p>Hope adapted from (C Rick Snyder et al., 1996)</p> <p>Resilience adapted from (Wagnild & Young, 1993)</p> <p>Optimism adapted from (Scheier & Carver, 1985)</p> <p>Task performance taken from (Williams & Anderson, 1991)</p> <p>Contextual performance adapted from (Bott, Svyantek, Goodman, & Bernal, 2003)</p>	Malaysia	639	91 %
Khuhro, M. A., Jantan, A. H. B., Zawawi, D. B et al. (2019)	Self-administrated, quantitative study	<p>Psychological Capital adapted from (Caza, Bagozzi, Woolley, Levy, & Caza, 2010) which is short version of (F. Luthans, Youssef, & Avolio, 2006)</p> <p>Job Performance adopted from (Williams & Anderson, 1991)</p> <p>Goal Setting adapted from (Nies, Hepworth, Wallston, & Kershaw, 2001)</p>	Pakistan	423	It is not reported.
Sun, T., Zhao, X. W., Yang, L. B., & Fan, L. H. (2012)	Self-report, cross-sectional, quantitative study	<p>Psychological capital taken from (F. Luthans et al., 2006)</p> <p>Job performance taken from (Williams & Anderson, 1991)</p> <p>Job embeddedness (Crossley, Bennett, Jex, & Burnfield, 2007)</p> <p>Demographic characteristics</p>	China	733	96.6 %

An, M., Shin, E. S., Choi, et al. (2020)	Descriptive, correlational, quantitative study	Positive psychological capital Korean version of Psychological Capital Scale (F. Luthans et al., 2006) Nursing performance outcomes Performance Measurement Scale Burnout Korean version of Professional Quality of Life Demographic characteristics	Korea	285	94 %
Hoşgör, H., Yaman, M. (2022)	Descriptive and correlational, quantitative study	Brief Resilience Scale developed by (Smith et al., 2008) Job Performance Scale adopted from (Kirkman & Rosen, 1999) and (Sigler & Pearson, 2000)	Turkey	284	88.7 %
Ali, I., Khan, M. M., Shakeel, S., & Mujtaba (2022)	Cross- sectional, quantitative study	Psychological capital taken from (F. Luthans et al., 2006) Job Performance taken from (Williams & Anderson, 1991) Job embeddedness adapted from (Mitchell, Holtom, Lee, Sablinski, & Erez, 2001) Psychological climate adapted from (Koys & DeCotiis, 1991)	Pakistan	350	88.4 %

4.2 Characteristics of included studies

The characteristics of included studies (N=6) are presented in table 4.1. The studies included varied, but all concerned low-and middle-income countries: I found no study of the relationship between PsyCap and nursing in high-income countries. Two of the studies were conducted in Pakistan (Ali, Khan, Shakeel, & Mujtaba, 2022; Khuhro et al., 2019), one in Turkey (Hoşgör & Yaman, 2022), one in Malaysia (Nasurdin et al., 2018), one in South Korea (An et al., 2020), and one in China (Sun, Zhao, Yang, & Fan, 2012a). The six studies represented a total sample of 2714, with sample size for each study ranging from 284 (Hoşgör & Yaman, 2022) to 733 (Sun et al., 2012a). Some studies investigated the level of PsyCap and job performance in addition to other variables which might affect the relationship between PsyCap and job performance, such as burnout (An et al., 2020), job embeddedness (Ali et al., 2022; Sun et al., 2012a), goal setting (Khuhro et al., 2019), and psychological climate (Ali et al., 2022). The proportion of female nursing participated in five studied ranging from 88 % (Ali et al., 2022) to 97 % (Sun et al., 2012a), one study has not reported the proportion of gender (Khuhro et al., 2019).

4.3 Operationalization of core theoretical concepts

The studies included in this review used different kinds of self-administrated questionnaires/instruments to examine the level of PsyCap, job performance, and other variables. But the most common used questionnaire was the psychological capital scale adapted from Luthans et al (2007).

The 24 items psychological capital questionnaire (PCQ) was developed and psychometrically analysed by Luthans et al. PCQ has demonstrated adequate confirmatory factor analytic structure across multiple samples, has shown strong internal reliability, consistently above conventional standards (Cronbach alpha=.88) (F. Luthans, Avolio, Avey, & Norman, 2007).

This scale utilizes six items for each of the four PsyCap dimensions hope, efficacy, resilience and optimism (Chapter 1). Luthans and co-authors reached agreement on the 24 items and put the response choices into a 6-point Likert-type scale (1 = strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree). To facilitate the “state-like” framing (Chapter 1), the PCQ asks the respondent to describe how you think about yourself right now.

4.4 Aim of the studies included in the review

The common aims among the studies included was to investigate the relationship between PsyCap and job performance among healthcare professionals. In addition, some of the studies explored factors that could affect the relationship between PsyCap and job performance.

4.5 Results

4.5.1 The relationship between PsyCap and job performance

I will first give a broad overview of the findings in the six studies, and then go into details about the methodology and weaknesses of each study.

Nasurdin et al. (2018) found positive associations between three dimensions of PsyCap, hope, self-efficacy, and optimism with two measures for job performance (contextual and task performance). But there was not found positive relationship between resilience and these job performance measures (Nasurdin et al., 2018). Whereas Hoşgör et al. (2022) found that psychological resilience and job performance are positively related (Hoşgör & Yaman, 2022).

The other studies investigated that there is a positive relationship between PsyCap and job performance (Ali et al., 2022; An et al., 2020; Khuhro et al., 2019; Sun et al., 2012a).

4.5.2 The effect of other variables on the relationship between PsyCap and job performance

Khuhro et al. (2019) further examined the relationship between PsyCap and job performance, PsyCap and goal setting, and goal setting and job performance. There were positive associations between these variables: PsyCap and goal setting were positively related to job performance.

Sun et al. (2012a) studied the relationship between PsyCap and job embeddedness and job performance in China. The results showed that there was a direct correlation between four components of PsyCap and PsyCap. In other words, job embeddedness as a mediator may play an important role in the association between PsyCap and job performance.

An et al (2020) examined if there were significant differences in job performance according to demographic characteristics of the participants. There were significant differences in job performance according to age, education level, working department, and working career duration. There was a higher reported job performance among older nurses (30-45), nurses with master's grade, and nurses with job experience more than 8 years. In addition, the authors investigated an eventual mediating role of PsyCap on the relationship between burnout and nursing performance. The results showed that nursing performance was negatively related to burnout, and burnout and PsyCap were also negatively related. The authors concluded that PsyCap could be seen as a mediator of the association between burnout and nursing performance (An et al., 2020).

Hoşgör et al (2022) found a significant relationship between psychological resilience and age, as well as psychological resilience and doing your job enthusiastically. As the nurses' age

increased, both the level of the PsyCap dimension “resilience” and job performance increased (Hoşgör & Yaman, 2022).

Ali et al, (2022) investigated the role of job embeddedness as mediator in the relationship between PsyCap and job performance and also the role of “psychological climate” as a moderator.

In the following, I give a detailed account of these six studies, and in the discussion part, I will compare their findings.

4.6 Detailed review of the six studies

In this part I review the studies included in detail.

4.6.1 The role of psychological capital on nursing performance in the context of medical tourism in Malaysia.

4.6.1.1 Description of study

Stated purpose

The purpose of the article is “to examine the effects of four psychological capital dimensions (self-efficacy, hope, resilience and optimism) on nurses’ job performance (task performance and contextual performance” (Nasurdin et al., 2018, p. 748).”. More specifically, this article wants to investigate if dimensions of the PsyCap affect job performance and how the context of Malaysian healthcare providers influences job performance (Nasurdin et al., 2018).

Chosen operationalisations and method

This article was a descriptive, correlational study. The target population consisted of nurses who worked in nine Malaysian private hospitals after getting agreement to participate from their respective Human Resource Departments. Data was collected from distributed questionnaires via the “drop-off” and “pick-method”¹. 770 questionnaires were distributed, and 639 questionnaires were included in the studies. 91% of the participants were female (Nasurdin et al., 2018).

Measurement of the instruments

Eight items were adapted from (Chen et al., 2001) for the measurement of self-efficacy. Hope was measured by six items adapted from Snyder et al. (1996). Five items adapted from (Wagnild & Young, 1993) were used for the measurement of resilience. Four items were adapted from (Scheier & Carver, 1985) for the measurement of optimism. Task performance was measured using seven items taken from (Williams & Anderson, 1991). Seven items were adapted from (Bott et al., 2003) for the contextual performance² measurement. The

¹ Drop-off and Pick-up (DOPU): means that the questionnaire is delivered to the participant directly and the participant will answer the questionnaire in a certain time, then the questionnaire retrieve from participant (Allred & Ross-Davis, 2011).

² Contextual performance means interpersonal behaviours or actions that increase social network of the organization. For example: volunteering to do a job, assist other colleagues (U. S. Kappagoda et al., 2014).

measurement was five-point Likert Scale (“1” = “strongly disagree” to “5” = “strongly agree”) (Nasurdin et al., 2018).

The chosen analytical model and reported findings.

The authors used descriptive statistics to describe the sample. In addition, factor loading, composite reliability (CR)³ and average variance extracted (AVE) were used to discover convergence validity⁴. The factor loadings ranged from 0.568 to 0.863, which was higher than (Hair Jr, Black, Babin, & Anderson, 2010) minimum cut-off value of 0.5. It means that all items were kept. AVE ranged from 0.515 to 0.668 which demonstrated enough convergent validity for all latent variables. CR for latent variables ranged from 0.875 to 0.933 which was higher than (Hair Jr et al., 2010) threshold value of 0.7 demonstrated significant homogeneity.

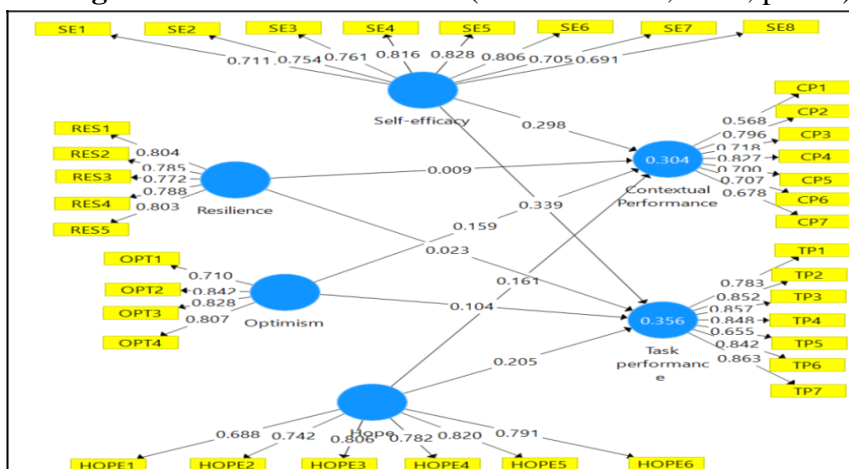
According to figure 1, these four components of PsyCap as well as the two performance measures are latent variables, which can be measured using questionnaires. Those yellow rectangles are observed variables used to measure the latent variables.

The authors used a linear regression model to represent the proportion of the variance for contextual performance and task performance as dependent variables that are explained (in a statistical sense) by the four components of PsyCap: Self-efficacy, hope, optimism, and resilience, as independent variables. Results demonstrated that R² values for contextual performance and task performance were 0.304 and 0.304, respectively. In other words, 30 % of the variance in contextual performance and 36 % of the variance in task performance can be described by PsyCap items: self-efficacy, hope, resilience, and optimism (Nasurdin et al., 2018).

³ Composite reliability “is a measure of internal consistency in scale items, much like Cronbach’s alpha” (Netemeyer, Bearden, & Sharma, 2003, p. 153)

⁴ Convergent validity refers to “how closely the new scale is related to other variables and other measures of the same construct” (Krabbe, 2016, p. 118).

Figure 1: Measurement Model (Nasurdin et al., 2018, p. 755)



The results indicate that there are positive associations between three dimensions of PsyCap (hope, self-efficacy, and optimism), with both contextual and task performance. However, it was not found any positive relationship between resilience and these performance items (Nasurdin et al., 2018).

The results thus indicated that there is no relationship between resilience and performance dimensions. The authors discussed if this unexpected result could be related to the characteristics of the samples. They emphasised that the descriptive statistics showed that resilience levels were higher than moderate (mean=3.70), and those who had been working for five years would have had enough experience to deal with the troubles related to their jobs. Therefore, resilience might not affect nurses` performance levels (Nasurdin et al., 2018).

Implications

The authors argued that three dimensions of PsyCap: self-efficacy, hope, and optimism, should be considered in the recruitment process, for instance, those nurses with higher levels of PsyCap can be prioritized.

Moreover, the authors suggested strategies to develop PsyCap capacities. Designing training interventions for nurses might pave the way to improve their competence, knowledge, skills, and ability to develop self-efficacy. This might lead to higher self-efficacy and therefore better job performance. For hope enhancement, establishing certain and challenging goals, a coherent program to reach the goals. A positive work environment through educating supportive colleagues can also increase hope. To enhance optimism, monitoring and training programs for

nurses to diagnose their beliefs, reflect on them and replace them with more practical ones might be introduced. The authors also suggested two strategies for resilience development: constructive professional network and providing social support when required, and positive feedback and praise achievement in nurses from leaders, leading to improved pride and increased resiliency (Nasurdin et al., 2018).

Limitations and suggestions

The authors mentioned three limitations in this study. First, the use of self-report measurements for the evaluation of job performance could bias the answers. The authors suggested that to deal with this limitation, using multiple resources for measuring job performance (supervisors and peers) could minimise the bias in future research. Second, since the population were those nurses working in private hospitals, the result of this study may not be generalized to all nurses in the health care services. So, in future studies, similar data should be collected also from public healthcare providers. Lastly, many factors can affect job performance among nurses besides PsyCap, so the authors suggested that future research using organization-based resources (for example, organizational climate) and job-based resources (feedback) should be considered as additional job performance predictors.

4.6.1.2 Assessment of the claims made in the article

There are some weaknesses in this study about sample size, collecting data from a limited number of hospitals which makes it impossible to determine to what extent the results of this study can be generalised to Malaysian nurses.

1. It is not mentioned how many nurses are working in these nine hospitals. 770 people are working, or 770 people agreed to participate?
2. We even cannot generalise this study to all active nurses in Malaysia because data was gathered from 9 private hospitals in Malaysia in addition, it is not clear how many nurses are working in these nine hospitals, and public hospitals are not included in this study as it mentioned in the limitations part.
3. A main weakness in this study were using self-report questionnaires about measuring job performance. Because personality can skew the answer for example an individual who response to the questionnaires in a positive way or another one who underestimates her/his self. Therefore, using another resource such as colleagues or managers to measuring the job performance might give more accurate data.

4. The measurement scales have been used in previous studies and tested for validation and reliability, and which results were satisfying (already described in the chosen analytical model). However, whether the questionnaires were translated into Malaysian before being validated and reliable is not mentioned. In the fact that it is not possible for all of the nurses to understand English fluently. If so, why is the process of making the Malaysian version not mentioned?
5. No discussion of possible 3rd variables that may be alternative explanations for the stated conclusions. For example, personality traits would have been relevant to mention as a possibility, in a caveat. Perhaps some people have “sunny dispositions” that make them answer all questions about themselves in a positive way, and vice versa for those with a “dark disposition”. Related: the tendency that some answer “yes/ agree” to most/all questions in surveys, and others “no/ disagree” to everything, i.e., that the positive correlations may be artefacts of the way different people respond to surveys.
6. This study is cross-sectional study. The problem is that it is very uncertain that causal relationships can be adequately captured in cross-sectional data.

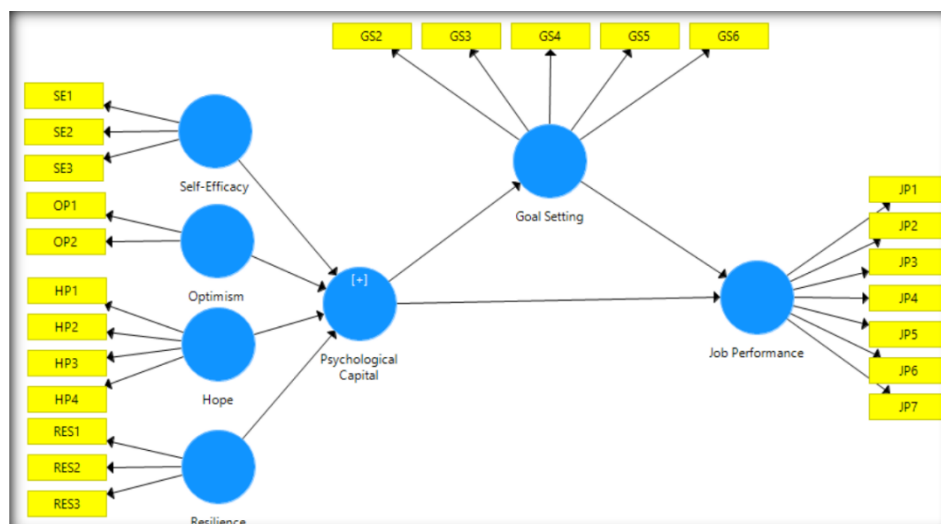
4.6.2 The Influence of Psychological Capital on Job Performance among Nurses: Intervening Role of Goal Setting

4.6.2.1 Description of study

Stated purpose

The article aims to investigate the factors influencing nurses’ performance in public health care services in Pakistan. More specifically, this study wants to investigate the relationship between PsyCap and job performance, PsyCap and goal setting, and goal setting and job performance. Goal setting is a mediating variable. (Khuhro et al., 2019).

Figure 2: Conceptual Model (Khuhro et al., 2019, p. 166)



According to figure 2, PsyCap and its components are independent variables and job performance is the dependent variable, with “goal setting” as a mediator. In this model, circles are latent variables which needs observed variables (grey) to be measured with. This model aims to show much variation in job performance that can be explained by PsyCap and goal setting respectively.

Chosen operationalisations and methods

The population study is nurses working in public sector hospitals in Pakistan. Approximately 730 questionnaires were sent to hospitals, and 460 questionnaires were returned; among them, 423 questionnaires were included for further analysis (Khuhro et al., 2019).

Measurements

For measurement of PsyCap the authors used a shorter version of the PsyCap questionnaire adopted from⁵ (Caza et al., 2010). Job performance was measured using seven items adopted from⁶ (Williams & Anderson, 1991). To measure goal setting as a mediating variable, they used six items developed by⁷ (Nies et al., 2001). (Khuhro et al., 2019).

The chosen analytical model and reported findings

The authors have tested on reliability. Results of Cronbach’s alpha for goal setting, job performance and PsyCap were 0.91, 0.94 and 0.92, respectively. The authors also determined the composite reliability for goal setting, job performance and PsyCap which were 0.93, 0.95 and 0.93 respectively, Composite reliability for these variables was higher than 0.7 and higher than the average variance extracted (AVE), which means that the questionnaires are strongly reliable (Khuhro et al., 2019).

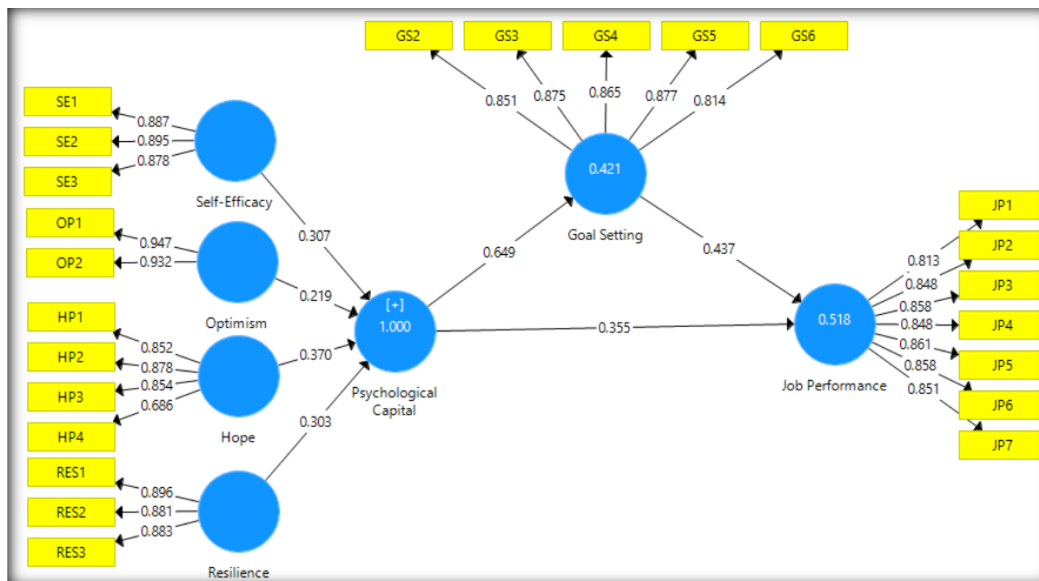
According to figure 3, the results of SEM demonstrated that the R² value for job performance as a dependent variable was 0.518. This means that 51.8 % of the variance in job performance can be explained (in a statistical sense) by PsyCap and goal setting (Khuhro et al., 2019).

⁵ The sample item of psychological capital is “I can think of many ways to reach my current work goals”.

⁶ The sample of items for the job performance is, “I adequately complete assigned duties,”

⁷ A sample of items for the goal setting is, “Setting goals is an important activity.”

Figure 3: Structural Equation Model (PLS Algorithm) (Page 168)



The authors concluded as follows:

The findings indicate that PsyCap and goal setting are positively related to job performance. In addition, the authors argued that PsyCap and goal setting are vital to enhancing nurses' job performance (Khuhro et al., 2019, p. 170).

4.6.2.2 Assessment of the claims made in the article

There are some weaknesses in this study in reporting the data collection, sample size strategy. It is hard to determine to what extent the findings can be generalised to not only nurses but also those nurses working in public hospitals in Pakistan.

1. It is unclear how many public hospitals exist in Pakistan and which ones are included in this study.
2. It is unclear how many nurses work in these hospitals.
3. It is not reported what kinds of sampling strategy is used for collecting data, for instance, systematic or convenience.
4. It is important to know what time of job the participants were answered the questionnaires, during their rest time or on a busy day. This issue is important because answers are probably not so accurate during a busy shift. Therefore, responses can be skewed.
5. It is unclear if questionnaires are translated into Urdu which is the official language, but it should be taken into consideration that many people of Pakistan can speak English fluently.

6. A Main weakness in this study is using self-report questionnaires about measuring job performance. Because personality can skew the answer for example an individual who response to the questionnaires in a positive way or another one who underestimates her/his self. Therefore, using another resource such as colleagues or managers to measuring the job performance might give more accurate data.
7. No discussion of possible 3rd variables that may be alternative explanations for the stated conclusions. For example, personality traits would have been relevant to mention as a possibility, in a caveat. Perhaps some people have “sunny dispositions” that make them answer all questions about themselves in a positive way, and vice versa for those with a “dark disposition”. Related: the tendency that some answer “yes/ agree” to most/all questions in surveys, and others “no/ disagree” to everything, i.e., that the positive correlations may be artefacts of the way different people respond to surveys.
8. This study is cross-sectional study. The problem is that it is very uncertain that causal relationships can be adequately captured in cross-sectional data.

4.6.3 The impact of psychological capital on job embeddedness and job performance among nurses: a structural equation approach

4.6.3.1 Description of study

Stated purpose.

The study aims to investigate “the relationships between psychological capital, job embeddedness and performance”. (Page 69). More spicifically, this study seeks to investigate the relationship between PsyCap and job performance with job embeddedness as a mediator (Sun et al., 2012a, p. 71).

Chosen operationalisations and methods.

This article is a cross-sectional study. The target population is full-time qualified nurses and nursing assistants working in five university hospitals in Heilongjiang Province, China. In November 2009, approximately 1000 questionnaires were sent out to the hospitals. Each hospital has a coordinator who distributed the questionnaires to the participants. Each hospital comprised 8-12 wards including medical, nursing, and other

wards. Approximately 200 questionnaires were sent to each hospital. the questionnaires were distributed during morning meeting. After three months 733 questionnaires were returned. Excluding criteria were small hospitals, nurse absent for study or trained outside the hospital (probably nursing assistants) (Sun et al., 2012a, p. 71).

The measurements

The authors used anonymous self-reported measurements to collect data. The measurements included descriptive characteristics such as age, length of time working in the current hospital and educational level, PsyCap, job embeddedness and performance. For measurement of the opinion of participants, was used five-point Likert Scale. Previous studies have validated all the measurements (Sun et al., 2012a).

To measure job embeddedness used a seven-item scale developed by⁸ (Crossley et al., 2007). Since this scale was relatively new, the authors have done a confirmatory factor analysis to assess the job embeddedness, which results were statistically significant. For measurement of PsyCap, they used the 24-item PsyCap Questionnaire adopted from Luthans et.al (2007). This scale had enough confirmatory factor analytic and high internal reliability (Cronbach's alpha=0.88). The authors in addition focused on task performance, and to measure task performance used a five-item scale developed by Williams and Anderson (1991). Cronbach's alpha was 0.86, which is highly reliable (Sun et al., 2012a, pp. 71-72).

The chosen analytical model and reported findings

To analyse the data, they used descriptive statistics: frequency, percentage, mean, standard deviation, and correlation analysis. Moreover, a structural equation model with maximum likelihood estimation was used for analysis.

Analysis of the demographic characteristics revealed that 97 percent of the participants were female, mean age of the group was 29 years, 46 percent had bachelor's degree, and 92 percent did not have administrative position. The results of the correlation study indicated that there is a positive relationship between PsyCaps and its components with job embeddedness. In addition, there is a positive relationship between PsyCap and job performance (Sun et al., 2012a).

⁸ A sample item for job embeddedness 'I feel attached to this organization'.

The authors further found that job embeddedness plays an important role as a mediator on the relationship between PsyCap and job performance. There is also direct and indirect relationship between PsyCap and job performance (Sun et al., 2012a).

Limitations

The authors note some limitations in this study. Firstly, using a convenience sample instead of randomization, means that we do not know to what extent we can generalise the study to a larger population of nurses. Secondly, self-report questionnaires does not necessarily reflect real job performance. The authors suggest using objective self-report instead of subjective self-report in future studies. Lastly, the authors suggest longitudinal research instead of cross-sectional study in future studies (Sun et al., 2012a, p. 76).

The authors conclude as follows

The findings revealed a significant statistical relationship between self-reported PsyCap, job embeddedness and performance. Based on the study, they recommend a supporting guideline to manage nurses in an effective way. They emphasise that investing in PsyCap can develop nurses' capabilities as a human resource. Moreover, PsyCap is state-like and can be improved and increased to reach to better job performance. They also note that the role of job embeddedness should not be neglected, due to its statistical effect on PsyCap and job performance. The authors note that future research should focus on how to invest and improve PsyCap among nurses (Sun et al., 2012a).

1.6.3.2 assessments of the claim in this study

There are some weaknesses in this study about the target people, and questionnaires.

1. It is unclear how many nurses and nursing assistants work in these five hospitals.
2. Another weakness in this study were using self-report questionnaires about measuring job performance. Because personality can skew the answer for example an individual who response to the questionnaires in a positive way or another one who underestimates her/his self. Therefore, using another resource such as colleagues or managers to measuring the job performance might give more accurate data.
3. No discussion of possible 3rd variables that may be alternative explanations for the stated conclusions. For example, personality traits would have been relevant to mention

as a possibility, in a caveat. Perhaps some people have “sunny dispositions” that make them answer all questions about themselves in a positive way, and vice versa for those with a “dark disposition”. Related: the tendency that some answer “yes/ agree” to most/all questions in surveys, and others “no/ disagree” to everything, i.e., that the positive correlations may be artefacts of the way different people

4. This study is cross-sectional study. The problem is that it is very uncertain that causal relationships can be adequately captured in cross-sectional data.

4.6.4 Positive psychological capital mediates the association between burnout and nursing performance outcomes among hospital nurses.

4.6.4.1 Description of study

Stated purpose

This study aims to “explore the association between burnout and nursing performance outcomes among Korean nurses working at a tertiary hospital and the mediating role of psychological capital in this relationship”(An et al., 2020, p. 1). More specifically, this study not only wants to investigate the relationship between burnout and nursing performance but also will explore the role of PsyCap on this relationship (An et al., 2020, p. 3).

Chosen operationalisations and method

This article was a cross-sectional, descriptive, correlational study. The minimum sample size was determined 251 nurses based on results of multiple linear regression with 0.05 significance level. They have accounted for 20% sampling error; hence the final sample size was calculated 295 people, and lastly, 285 nurse were included in this study. The data was collected from April to July 2018 and participants were nurses working at a tertiary hospital located in Gwangju city. This hospital was selected conveniently. Included criteria was those nurses who had been working more than 6 months (An et al., 2020, p. 3).

To measure burnout used 10 items of the Korean version of professional quality of life. To measure nursing performance was used a performance measurement scale that consists of 4 components: Competency, attitude, willingness to improve, and application of nursing process. The Korean version of psychological capital scale was used to measure the level of PsyCap. The questionnaire consisted of the traditional 4 dimensions of PsyCap: Self-efficacy, hope, resilience, and optimism. The authors collected demographic characteristics consisted of age,

marital status, educational level, and perceived health status in addition to job-related characteristics such as working department, working careers, and workload (An et al., 2020).

To describe the distribution of burnout, nursing performance and positive psychological capital in the sample the authors used descriptive statistics such as frequency, percentage, mean and standard deviation. Pearson correlation was used to investigate the relationship between burnout and job performance, and PsyCap. The mediating effect of PsyCap in the relationship between job performance and burnout have explored (An et al., 2020).

94 % of the participants were female. 83 % had bachelor's degree. The authors then examined differences in job performance based on their demographic and job-related characteristics. There were significantly differences in job performance according to age ($F = 22.88, p < 0.001$), education level ($F = 12.81, p < 0.001$), working department, ($F = 3.22, p = 0.023$), and working career duration ($F = 25.41, p < 0.001$). In addition, job performance was significantly higher in older nurses (30-45 years old), among those with a master's degree, and among those nurses working for more than 8 years (An et al., 2020, p. 5).

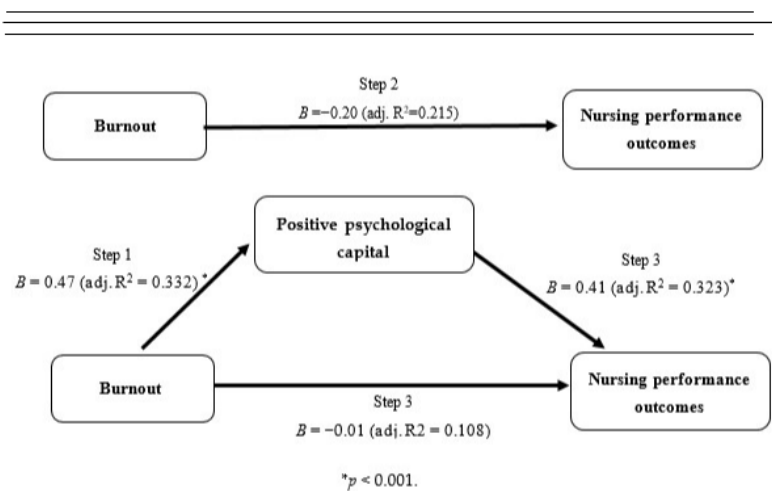
Pearson correlations showed that nursing performance was negatively related with burnout ($r = -0.23, p < 0.001$) and positively related to positive psychological capital ($r = 0.50, p < 0.001$). There was a negative relationship between burnout and positive psychological capital ($r = -0.50, p < 0.001$) (An et al., 2020, p. 5).

The authors have performed multiple regression analyses to investigate the mediating effect of PsyCap between burnout and nursing performance. The results indicate that in step 1, there was a significant relationship between burnout and PsyCap ($\beta = -0.47, p < 0.001$). In step 2, there was a significant association between the burnout and job performance ($\beta = -0.20, p < 0.001$). In step 3, PsyCap was significantly related to job performance ($\beta = 0.41, p < 0.001$) in addition to the regression coefficient (β) for burnout declined from -0.20 to -0.01 (An et al., 2020).

PsyCap was found as a mediator of the association between burnout and nursing performance. It means that burnout affects job performance mainly through its influence on PsyCap level. Given the way the model of the authors is specified, the significance of burnout only works through its negative effect on positive psychological capital ($b = -0.01, 95\%$ bootstrap CI = $-0.02, -0.01$). I included the model of the authors here. This model seems is like this:

If you experience burnout, your PsyCap goes down, and if your PsyCap goes down, so does your job performance. (Actually, since the bivariate relationship between burnout and job performance (step 2) becomes non-significant when you add PsyCap in the equation (step 3), the model suggests that burnout only works through lowering PsyCap.)

Figure 4. Mediating effect of positive psychological capital on the relationship between burnout and nursing performance outcomes (An et al., 2020, p. 8).



The authors concluded as follows

The findings indicated direct effect of the PsyCap on job performance and indirect effect of PsyCap as a mediator between burnout and job performance. In addition, the authors have noted that higher level of PsyCap makes increased job performance although there is a high level of burnout among nurses. Therefore, setting interventions and strategies to improve PsyCap should be under consideration. Future study should investigate the effect of the planned interventions for nurses (An et al., 2020, p. 10).

4.6.4.2 Assessment of the claims made in the article

There are some weaknesses in this study:

1. It is mentioned that included criteria is “those nurses who had been worked at least 6 months were invited to participate” (age 3) but it is unclear if those nurses who had been working 6 months in this hospital or those who had been worked 6 months as a nurse.
2. How many questionnaires were sent out and returned?
3. How many nurses were working in total in this hospital?

4. It is important to know what time of job the participants were answered the questionnaires, during their rest time or on a busy day. This issue is important because answers are probably flattered during a busy shift. Therefore, responses can probably be skewed.
5. The results show that nurses with higher age, education and experience have higher job performance. Those with higher job experience and education probably have more self-confidence and might score their job performance higher than they should. Hence, using other sources such as leaders and colleagues to find job performance levels gives more accurate data.
6. No discussion of possible 3rd variables that may be alternative explanations for the stated conclusions. For example, personality traits would have been relevant to mention as a possibility, in a caveat. Perhaps some people have “sunny dispositions” that make them answer all questions about themselves in a positive way, and vice versa for those with a “dark disposition”. Related: the tendency that some answer “yes/ agree” to most/all questions in surveys, and others “no/ disagree” to everything, i.e., that the positive correlations may be artefacts of the way different people respond to surveys.
7. This study is cross-sectional study. The problem is that it is very uncertain that causal relationships can be adequately captured in cross-sectional data.

4.6.5 Investigation of the relationship between psychological resilience and job performance in Turkish nurses during the Covid-19 pandemic in terms of descriptive characteristics

4.6.5.1 Description of study

Stated purpose

This study aims to investigate “the relationship between psychological resilience and job performance in nurses during the Covid-19 pandemic in terms of descriptive characteristics”. More specifically, this study aims to examine the level of PsyCap and job performance among nurses, if mean scores from the Brief Resilience Scale and job performance in terms of their descriptive characteristics are related significantly, and resilience level and job performance are related significantly among nurses (Hoşgör & Yaman, 2022, pp. 2-3).

Chosen operationalisations and methods

This article is a descriptive and correlational study. The target population was the nurses working in a public hospital in Istanbul. The questionnaires were sent out by E-mail from February 2021 to March 2021. The sample size consists of 284 nurses selected by convenience sampling method (Hoşgör & Yaman, 2022, p. 3).

The measurements were the “Descriptive information form”, “Brief resilience Scale” and “job performance” to collect the data in this article. The Brief resilience scale and job performance measurements have been validated and tested on reliability in the Turkish language (Hoşgör & Yaman, 2022).

To measure descriptive data was made a questionnaire consisting of sex, marital status, age, whether they have been diagnosed with Covid-19, and whether they do their job enthusiastically. A scale developed by Smith et al. (2008) was used to measure psychological resilience. The Cronbach’s alpha was 0.80. the Cronbach’s alpha of the Turkish version was 0.83 according to Dogen (2015). The job performance scale developed by Kirkman and Rosan (1999) and Sigler and Pearson (2000) were used to measure the job performance level, and this measurement was adapted into Turkish by Col (2008). The internal reliability coefficient is 0.7 and for the Turkish version is 0.83. the measurements have been validated by previous studies and have tested on reliability which the results of Cronbach alpha were satisfying. Both the Brief resilience scale and job performance measurements are self-report and rated on a 5-point Likert-type scale (Hoşgör & Yaman, 2022).

The chosen analytical model and reported findings

The data were tested for normally distributed, kurtosis and skewness values, and results shows that the data is in the range of ± 1.9 . Therefore, parametric tests were used. In addition, the t-test, Pearson correlation analysis and simple regression analysis were used at a 95 % confidence interval and $p < .05$ (Hoşgör & Yaman, 2022).

The analyses of descriptive characteristics of the participants show that 89 % were female, 68 % were married, 80 % were not diagnosed with Covid-19 positive, 86 % worked enthusiastically, and 51 % were under 40. Mean age 37 years (Hoşgör & Yaman, 2022).

The result of descriptive analysis of the Brief resilience scale indicates that the participants have moderate psychological resilience with 3.33 mean score. Reliability of the overall scale indicated that this scale is reliable with Cronbach’s alpha 0.74. The participants had a job

performance level between 4.10 to 4.31 with the mean score of 4.18. The overall scale is reliable with Cronbach's alpha 0.77 (Hoşgör & Yaman, 2022).

The authors examined if there was any relationship between descriptive characteristics and psychological resilience and job performance. The results showed a significant statistical relationship between psychological resilience and age ($p=0.030$). Psychological resilience and "doing their jobs enthusiastically" were also related significantly. While there were no statistically significant relationship between the descriptive characteristics and job performance (Hoşgör & Yaman, 2022).

Pearson's correlation coefficient was used for measuring the relationship between psychological resilience, job performance and age. There were positive and low correlations between the mean score of psychological resilience and job performance. As the nurse's age increased, the level of both resilience and job performance increased. Likewise, as the level of psychological resilience improved, so did the job performance levels (Hoşgör & Yaman, 2022, p. 4).

The authors also examined psychological resilience as a job performance predictor. The results indicated that the influence of psychological resilience on job performance level was 5 %. It means that as a one-unit in psychological resilience increased, the job performance level increased 0.05 units. I do not know if the authors controlled for age or not (Hoşgör & Yaman, 2022, p. 6).

Limitation of the study

Limitations of this study were firstly, this study conducted in one province and in a limited period of time which we cannot determine to what extent we can generalise this study to the nurses' society overall. Secondly, the authors have included few descriptive characteristics due to busy day and limited time that the participants have had. Hence, the authors have suggested that nurses' education level, working hour in a month, their competences, working ward, their jobs facilities could be included in the future study. Lastly, in this study the authors have used short version of the measurements to save the time for the participants, thus, this could be another limitation in this study (Hoşgör & Yaman, 2022, p. 6).

The authors conclude as follows

The findings indicated that there was a moderate psychological resilience and a high level of job performance among the participants. Moreover, this study conducted during Covid pandemic which impacted the mental health such as depression and anxiety for health care

providers. Hence, a moderate psychological resilience can be a positive outcome (Hoşgör & Yaman, 2022).

The authors suggested that psychological resilience might be increased through establishing mental health teams, psycho-education programs, measuring the psychological resilience and job performance level by managers, making activities for the employee to reduce stress level, reduce the workload through employing extra nurses, and better payment for those working during the corona pandemic. Moreover, the authors recommend that future studies be conducted with a larger sample size (Hoşgör & Yaman, 2022).

4.6.5.2 Assessment of the claims made in the article

There are some weaknesses in this study about sample size, target people and the measurements.

1. It is unclear how many questionnaires were sent out and how many were returned. The sample size should be more than 284 people because in the statistical analysis part is mentioned that “incomplete or incorrectly filled questionnaires were excluded” (Hoşgör & Yaman, 2022, p. 3).
2. Using self-reported questionnaire about job performance is weakness also of this study.
3. No discussion of possible 3rd variables that may be alternative explanations for the stated conclusions. For example, personality traits would have been relevant to mention as a possibility, in a caveat. Perhaps some people have “sunny dispositions” that make them answer all questions about themselves in a positive way, and vice versa for those with a “dark disposition”. Related: the tendency that some answer “yes/ agree” to most/all questions in surveys, and others “no/ disagree” to everything, i.e., that the positive correlations may be artefacts of the way different people respond to surveys.
4. This study is cross-sectional study. The problem is that it is very uncertain that causal relationships can be adequately captured in cross-sectional data.

4.6.6 Impact of Psychological Capital on Performance of Public Hospital Nurses: the Mediated Role of Job Embeddedness

4.6.6.1 Description of study

Stated purpose

The purpose of the article was to “investigate the relationship between psychological capital and employee performance through the mediating role of job embeddedness (Ali et al., 2022, p. 1)”. More specifically, the article wants to investigate if psychological capital not only correlates with job performance but is a causal factor influencing job performance. The article further wants to investigate the eventual role of “job embeddedness” and “psychological climate⁹” as factors mediating or moderating the eventual impact of psychological capital on job performance (Ali et al., 2022).

Chosen operationalisations and method

The method used is survey questionnaires distributed to a “convenience sample” of nurses in four public hospitals of Rawalpindi and Islamabad in Pakistan (Ali et al., 2022).

The measurements

To measure PSyCap, the authors used the psychological capital questionnaire adapted from (F. Luthans et al., 2006). A Job embeddedness scale was adapted from (Mitchell et al., 2001) to measure job embeddedness level¹⁰. In addition, to investigate the level of job performance used employee performance questionnaire developed by (Williams & Anderson, 1991). Moreover, Psychological climate questionnaire adapted from (Koys & DeCotiis, 1991) to measure the level of psychological climate¹¹ (Ali et al., 2022, p. 9).

All the measurements have been validated by previous studies. The authors have tested measurements on reliability by Cronbach’s alpha. The results of Cronbach’s alpha for psychological capital, job embeddedness, employee performance, and psychological climate were 0.951, 0.942, 0.932, and 0.944 respectively (Ali et al., 2022).

The chosen analytical model and reported findings

The authors used correlation analysis to investigate the association between the variables. The findings indicated that there was a correlation between PsyCap and job embeddedness with the correlation coefficient 0.70. in addition, there was a strong correlation between the job embeddedness and employee performance with correlation coefficient 0.78. Moreover, the correlation coefficient of 0.64 indicating substantial correlation between PsyCap and employee performance. There was also a strong correlation between job embeddedness and psychological

⁹ “Psychological climate is how employees perceive their organizational environment” (O’Neill & Arendt, 2008, p. 5).

¹⁰ A sample item for job embeddedness is “I really love the place where I live”.

¹¹ A sample item for psychological climate is “I organize my work as I see best”.

climate with correlation coefficient 0.723. There was a substantial correlation between employee performance and psychological climate with $r=0.541$. P-value < 0.01 for all variables (Ali et al., 2022, p. 11).

Figure 5. Theoretical framework

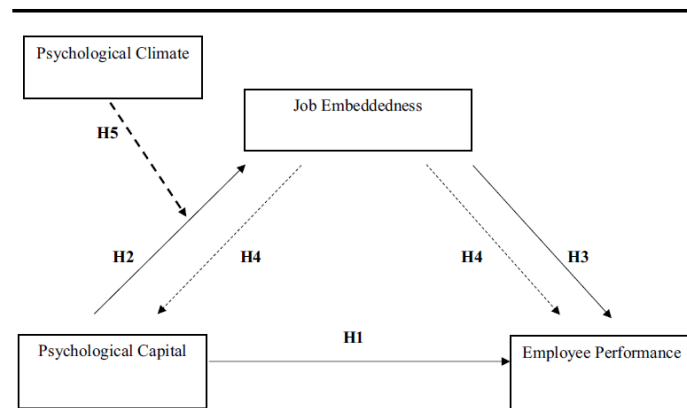


Fig.1 Theoretical framework

According to Figure 5, this article has five hypotheses. H1, there is a relationship between PsyCap and job performance. H2, there is a relationship between PsyCap and job embeddedness. H3, there is a relationship between job embeddedness and job performance. H4, the mediator role of job embeddedness of the relationship between PsyCap and job performance. H5, moderator role of psychological climate of the relationship between PsyCap and job embeddedness.

The authors performed regression analyses to test the hypotheses. The results indicated that there is a relationship between PsyCap and employee performance (H1), PsyCap and job embeddedness (H2), and job embeddedness and employee performance (H3). These three hypotheses are confirmed. Statistically speaking, the results suggest that changing 1 unit in PsyCap there will bring 37% change in employee performance. 1 unit change in PsyCap will bring 36 % effect on job embeddedness. 1 unit change in job embeddedness will bring 57% change in employee performance (Ali et al., 2022).

To test the hypothesis 4, that job embeddedness mediates the link between PayCap as an independent variable and employee performance as a dependent variable, the result indicatew a partial role of job embeddedness as a mediator in the association between PsyCap and employee performance. Statistically speaking ad given how the model is specified, a one unit

change in PsyCap is associated with a 21 % change in employee performance through job embeddedness (Ali et al., 2022).

To test hypothesis 5, which was that psychological climate moderates the link between PsyCap and job embeddedness, results showed that the coefficient value was statistically significant (Ali et al., 2022).

Limitation of the study

The authors noted several limitations, firstly, the target people were limited to five hospitals. The authors suggested including other hospitals staff in the future research. Secondly, this study was a cross-sectional study which limit the generalizing the data. the authors recommended longitudinal study for the future research. Moreover, the authors noted that the target people in this study was nurses, future studies should include another organisation staff. Lastly, there should be another mediating and moderating variable between PsyCap and employee performance that could be considered in the future research (Ali et al., 2022).

The authors conclude as follows:

The findings revealed that psychological capital has a significant positive relationship with employee performance. Likewise, high levels of psychological capital can signify an employee's positive work-related performance. According to this study, employees with higher psychological capital face a higher level of job embeddedness.

According to the present findings, it is concluded that enhancing the individual nurse psychological state will influence their embeddedness with their job. The association between job embeddedness and performance is significantly positive because when a nurse is highly linked and fits within a hospital and facilitate with a favourable advice or assistance in the job, his or her motivation to perform well will also be high. The present study results [show] that individuals (nurses) high in psychological capital are more embedded with their jobs which in turn enhance their performance (Ali et al., 2022, p. 14).

1.6.6.2 Assessment of the claims made in the article

There are some weaknesses in this study:

1. It is not reported if more questionnaires were sent out than were returned, or how many nurses there were in total at these four hospitals.

2. “Convenience sampling” probably means that the authors approached those they hoped would be willing to return the questionnaire, or that the 350 were the ones they got hold of, or that these were the ones who returned the questionnaires of the many more they sent out. It is hard to know, since the authors do not specify what type of “convenience sampling strategy” they used. This is a quite large initial weakness of the study, since it is then impossible to determine to which extent the findings from analysing the sample can be generalized even to the nurses working in the four hospitals under study. Those who reported may in various ways be a select group, for example of those who had spare time on their hand, or were flattered by being asked, or some other factor(s) that may have skewed the response.
3. How sure can one be that the variables measure something more than the respondents’ own perceptions? A problem with regard to the variables/index/factor measuring employment performance: How to know if other workers or leaders confirm the perception the nurses have of their own job performance?
4. No discussion of possible 3rd variables that may be alternative explanations for the stated conclusions. For example, personality traits would have been relevant to mention as a possibility, in a caveat. Perhaps some people have “sunny dispositions” that make them answer all questions about themselves in a positive way, and vice versa for those with a “dark disposition”. Related: the tendency that some answer “yes/ agree” to most/all questions in surveys, and others “no/ disagree” to everything, i.e., that the positive correlations may be artefacts of the way different people respond to surveys.
5. This study is cross-sectional study. The problem is that it is very uncertain that causal relationships can be adequately captured in cross-sectional data.

5 Discussion

5.1 Summary of findings

After going through the results of those studies included, it is found that a higher level of psychological capital could help to have a higher level of job performance. It means that there is a positive relationship between PsyCap and job performance. In addition, this literature review also discovered that there are several factors such as work environment, workload, demographic and personality characteristics, job embeddedness, goal setting, psychological climate which can change the level of PsyCap and job performance as well as the relationship between these two. This thesis also has assessed the generalizability of the findings to the population.

Considering the results, I found that there were studies which aimed to investigate the relationship between PsyCap and job performance about different jobs. However, I would particularly study this relationship related to nurses as an important health profession. I hoped to find several longitudinal studies, because this type of study gives better insight to follow the relationships between their variables in time, this helps to establish the real sequence of cause-and-effect relationship, but I did not find any such studies - only studies using cross-sectional data. This made it difficult to find a clear answer to the relationship between PsyCap and job performance. In addition, going through the searches for this thesis, I noticed that there are several factors which affect the relationship between PsyCap and job performance. Hence, I found that I should investigate other factors that could affect the association between job performance and psyCap in my research.

Going on further, I will portray the findings based on the research questions mentioned in the first chapter. Then, I will mention the limitations of this study, and lastly, what is needed for future research.

5.2 Is there any relationship between nurses' psychological capital and job performance?

Findings in this review has shown that there is a positive relationship between PsyCap and job performance. In other words, the higher level of PsyCap might increase job performance level among nurses. This means that if a nurse's PsyCap is increases, then it is more likely that he or she reports to do her or his job well.

However, the first study (of Nasurdin et al. (2018)) found that resilience as one component of PsyCap was not related to job performance in their study, although the other three components that constitute PsyCap were found to be statistically significant. While Hoşgör et al. (2022) in their study found a positive relationship between resilience and job performance. Therefore, it is unclear if resilience plays an important .

Apart from resilience, the relationship between PsyCap and job performance was found to be significant in all the studies. Thus, this suggests that PsyCap as a psychological resource can help healthcare providers to move forward when confronted with job hassles. In addition, when a nurse with high level of PsyCap is faced with challenges in her or his job, the one might suppose the challenges are seen as a developing lesson. Nurses who are confident, optimistic, and hopeful are likely to perform better, and they might show better outcomes when it comes to dealing with jobs difficulties.

With considering the result of these studies, hospital managers may try to obtain and retain personels with high PsyCap by hiring nurses that score high on psychological capital to begin with, and by trying to improving PsyCap through training programs and other interventions aimed at nurses.

5.3 How vital could psychological capital be for understanding variations in job performance based on the empirical studies in this review?

The relationship between PsyCap and job performance can be better understood if also including mediating or moderating variables in the study (F. Luthans et al., 2005).

The studies under review showed that there are several factors which can affect both PsyCap level, job performance level, and the relationship between PsyCap and job performance. These variables are demographic characteristics of the participants such as age, how many years one has worked as a nurse, education level, as well as perceived job embeddedness, burnout, goal setting, and the psychological climate on workplace. Both job embeddedness and demographic characteristics were measured in two studies, while other mediating variables were analysed in one study. In the below subsection, I have discussed these mediating variables.

Demographic characteristics:

According to An et al. (2020) and Hoşgör et al (2022) older participants showed higher level of job performance. It means that older nurses perform better in comparison to younger nurses. This might be due to job experience. If we suppose that older nurses have more job experience, therefore, it is reasonable that nurses with more job experience would perform well. This is also suggested by the result of An et.al study, which found that nurses with more than 8 years job experience had a higher level of job performance. It may also mean that senior nurses have other types of jobs, perhaps with better pay and less stress?

In addition to age, having a master's degree was found to be significant in order to job performance. This finding confirmed the above argument. It means that nurses with higher education can work on other types of job for example, management. So again, nurses with more job experience perform better and higher education gives them higher knowledge to do daily duties as well as deal with challenges. (Nasurdin et al., 2018) in their study noted that job tenure in the participants was 4.9 years, but they did not explore if there is a relationship between job experience and job performance. Including mediating and moderating variables in all future studies would give a better understanding of the relationship between PsyCap and job performance.

Job embeddedness:

The findings in this review indicate that there is a positive relationship between PsyCap and job embeddedness. Improving the level of PsyCap may increase job embeddedness. A study (Ali et al., 2022) showed that the role of job embeddedness may serve as a mediator of the relationship between PsyCap and job performance. When a highly PsyCap and motivated nurse works in a hospital with favourable facility, the one is more likely to perform their job better, and this nurse is definitely more embedded with their job. These findings indicate that improving PsyCap may increase retention in job and performance.

Goal setting:

Goal setting is another variable that affects the relationship between PsyCap and job performance (Khuhro et al., 2019). Nurses may perform better when they have a goal that gives them better insight to what they will attain.

Burnout:

From reviewing the studies included, nursing performance was negatively related to burnout as well as burnout and PsyCap were negatively related (An et al., 2020). PsyCap was found as a mediator of the association between burnout and nursing performance (An et al., 2020).

To sum up, there are several factors which affect PsyCap, job performance and the relationship between these two variables. The relationship between PsyCap and job performance is not a simple correlation. Many more factors, including the work environment, workload, demographic and personality characteristics, job embeddedness, goal setting, psychological climate influences the level of these variables, and their relationship.

In the next sub-section, I will discuss the generalizability of the studies included.

5.4 The generalizability of the studies

There is perhaps already enough discussion and elaboration on the analysis and research questions of the six studies reviewed. However, I would re-state here at the end that despite the fact that there is high reliability and validity to many aspects in the reviewed articles, one aspect of the research causing a defect into making generalizations based on the research outcomes is a lack of enough clarity on the sampling of the research participants. This emerged as a common problem across all the studies, which makes it uncertain to make strong generalizations on the basis of the studies. Besides, as mentioned in the limitations sections, the difference in social, political and economic contexts makes it challenging to generalize the results of these studies.

To add to the reasons for not generalizing these research outcomes, it was clear that most of the research participants in most research were female nurses with an exception of one article (Khuhro et al., 2019) which did not clarify the participants' gender at all. As a result, even if one should attempt to generalize any outcomes of these studies, there should probably be limited to female nurses.

Moreover, as I mentioned in chapter two, there is a growing interest concerning “state and trait realistically fall along a continuum” and states of hope, efficiency, resilience, and optimism are open to develop over time (B. C. Luthans et al., 2014).

On the other hand, a common characteristic for the six reviewed articles was that all of them were cross-sectional self-report study. This method gives a view of how the nurses see their jobs. It also provides data about intercorrelation among different feelings and thoughts. This can give important information to draw hypotheses and how the participants respond to their jobs. But cross-sectional study just gives “a relatively easy first step in studying phenomena of interest” (Spector, 1994).

Knowing this and the “state-like” features of PsyCap, we can conclude that Since PsyCap is “state-like” and changeable during a period, to measure the relationship between PsyCap and job performance we ideally need to perform longitudinal study at two or more points of time. While doing cross-sectional study limits generalizability of the studies to the population.

The other common issue was using self-reported questionnaires for job performance measurement. Problems with self-report research are most intensely related to those authors with cross-sectional strategies where all information is gathered at one point in time. Using other resources like observers or managers can be useful to have more accurate data and more confident conclusions. This problem might be decreased but will not be eliminated (Spector, 1994).

To add the reason why using another resource for job performance measurement is important is that an individual value or personality traits affects in the association between PsyCap and job performance (F. Luthans et al., 2005). For instance, one underestimates their abilities or pays attention to their dark side and answers the questionnaires based on it, versus, is that one answers the questionnaires in a positive way which is far from reality.

5.5 Limitations of the study

One of the limitations I faced during my study and thesis writing was the context of the different researches reviewed. While finding somewhat similar tendencies in the very different national contexts, the six studies were made to increase the probability that the findings are relatively robust, i.e., not very national-context-sensitive.

Another challenge was the fact that I wanted to find a longitudinal study in order to review the relationship between PsyCap and job performance, but there was no such research published in the directories I had access to. As a result, I chose to go for cross-sectional studies which I had referred to so far. The reason for my preference of longitudinal study was the fact that the outcomes of this type of research is produced during a longer period of time, eliminating the factors negatively affecting the reliability and validity of a research study, while a cross-sectional study cannot give confident conclusion about the causal connections between variables (Spector, 1994). For an example, (Hoşgör & Yaman, 2022) have done their study during COVID-19 pandemic. Psychosocial problems resulting of pandemic due to self-isolation, quarantine, and social distancing, involved individuals and in the general population (Mukhtar, 2020). To what extent we can be sure that resistance level in the participants is not affected by corona pandemic. This declaration suggests importance of longitudinal study.

5.6 Suggestions for future studies

Here at the end, I will sum up my main suggestions for the future research.

1. Self-reported questionnaires are not sufficient in themselves to evaluate job performance. Hence, I recommend using other sources when measuring job performance, such as opinions of managers, colleagues, other observers, in the future research.
2. The relationship between PsyCap is “state-like”, thus, it changes, may develop over time, likely in both directions. Thus, the relationship between PsyCap and job performance should be investigated in two or more points of the time. I suggest longitudinal studies in the future research.
3. Given the importance of various mediating and moderating variables, I suggest that they are incorporated in a systematic fashion in future studies of the relationship between PsyCap and job performance.
4. The largest proportion of the participants were female in these six studies. In this circumstance, males’ opinion will not be shown under this huge proportion of female nurses. Hence, I suggest that future research include more male nurses when studying the relationship between PsyCap and job performance.

6 Conclusion

There are many articles about the relationship between PsyCap and job performance, but there are few articles which study on nurses regarding this topic. In addition, all the studies have confirmed the positive relationship between PsyCap and job performance, apart from Nasuridin et al. which have not found any relationship between the resilience and job performance. In addition, the evidence illustrated the role of other variables in the relationship between PsyCap and job performance especially, job tenure, job embeddedness. Furthermore, all of the included studies have used validated and reliable measurements. While generalizability of the studies is found to be hard to extend to the population.

The studies reviewed are very strong conclusions about cause-effect relationships between the variables, including making predictions of exactly how much nurses' employment performance will increase if employers or others are able to find a way to manipulate (increase/decrease) the "psychological capital" of nurses, or eventually skew hiring decisions in the future toward nurses that score high on "psychological capital" from the outset.

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