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Meta-Analysis in Clinical Psychology

Countertransference Among Psychiatric Nurses: A Meta-Analysis of Experience and Coping Mechanisms

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Abstract

Introduction: Countertransference (CT) is common among psychiatric nurses because of the long-term emotional involvement towards patients with extreme mental illnesses. Although there has been increasing theoretical knowledge, the scattered nature of empirical evidence on the nature of CT experiences and coping mechanisms in psychiatric nurses.

Methods: This meta-analysis aimed to synthesise available empirical data on the types of CT experiences reported by psychiatric nurses. Scopus, WoS, PsycINFO, PubMed, and EBSCOhost were used in the systematic search, with terms limited to publications from the last five years (2020 to 2025). Afterwards, 63 manuscripts that met the inclusion criteria were found using Covidence. Random-effects meta-analytic models were used to obtain pooled effect sizes, and heterogeneity was assessed using Q and I^2 statistics.

Results: The relationships between the experience of CT and coping mechanisms, coping strategies, and nurse well-being, and between coping strategies and patient care quality, had moderate-to-large, pooled effects that were statistically significant. Years of experience and clinical setting were essential moderators of coping effectiveness, and older nurses and inpatient practitioners exhibited more adaptive coping patterns. Countertransference is a significant and quantifiable influence on psychiatric nurses' coping mechanisms, well-being, and patient care.

Conclusions: To enhance professional resilience and therapy, emotional regulation, self-awareness, and structured coping interventions are suggested, with their strengthening through specific training.

Keywords: Coping Mechanisms; Countertransference; Psychiatric Nurses; Transference.

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INTRODUCTION

Studies have shown that psychiatric nurses are particularly prone to countertransference (CT) responses because of their prolonged and intense interaction with clients with severe cases of mental health disruptions [1,2]. This was affirmed by Blitzer [3] that CT have a devastating impact on nurse-patient relationships and the outcome of therapy (feelings of frustration, over-identification, avoidance, or excessive involvement, among others). Similar empirical studies have reported that CT can also help establish in-depth empathic knowledge and, in its uncontrolled form, undermine professional boundaries, lead to burnout, and compromise the quality of care [4,5]. This highlights a preliminary acknowledgement of mental health research: the inner emotional response of psychiatric nurses cannot be considered neutral or unrelated to patient care.

Although this theoretical and clinical consciousness exists, research on CT in psychiatric nursing remains sporadic and inconsistent across several vital aspects. First, most studies investigating CT have been qualitative and focused on individual institutions or small samples, and none have been standardised, which makes generalisation challenging [6,7].

Second, it lacks a systematic literature synthesis that summarises data across various environments, patient groups, and cultural backgrounds; a gap that prevents everyone from agreeing on the prevalence and predictors of CT among psychiatric nurses [8]. Third, it is recognised that coping mechanisms are the subject of theoretical discussion; there is a significant lack of empirical studies demonstrating the approaches psychiatric nurses use to identify and respond to their experiences of CT [9,10]. This clearly establishes that prior studies address coping both ad hoc and as part of measures like stress management, without distinguishing strategies that are more directly aimed at CT [10,11].

This undeniable disparity is particularly significant considering the contemporary psychiatric care setting, where length of time spent with patients and multidisciplinary care predetermine the increased workload on emotions. However, the lack of a rigorous meta-analytic synthesis constitutes a significant knowledge gap [12,13]. The prevalent coping strategies, the consistency and effectiveness of the relationships across studies, and the need for a systematic quantitative synthesis of research results. This synthesis would identify patterns that would not be detected in single studies, develop theoretical frameworks of the interaction between nurses and patients, and inform the design of specific training interventions and support systems. Thus, the study is necessary to systematically pool evidence on psychiatric nurses' experiences with CT and their coping styles.

Through a meta-analysis, the study will provide stronger empirical standards, identify the factors that contribute to coping effectiveness, and offer practical suggestions for subsequent research. To achieve this, the PICO framework was used to develop study questions. Population = Psychiatric nurses; Intervention = Coping mechanisms (mindfulness, cognitive-behavioural therapy, emotional regulation training); Comparison = Demographic factors (years of experience, training, work setting) and Outcome = Nurse well-being and patient care quality:

a) What are the types of countertransference experiences reported by psychiatric nurses in clinical psychiatric settings?

b) What coping mechanisms do psychiatric nurses use to manage their countertransference reactions?

c) How do the coping mechanisms for countertransference vary between psychiatric nurses with different years of experience, training, and working in diverse clinical settings?

d) What is the impact of coping mechanisms for countertransference on psychiatric nurses' well-being and the quality of patient care?

Countertransference and Coping Mechanisms

In the context of psychoanalysis, the conventional view is that countertransference (CT) can occur in any therapeutic relationship, and that the provider's personal emotions or unresolved issues, as well as unconscious prejudice, can influence their judgment of the client and the therapeutic relationship [10,14]. This theory, which is, in fact, a Freudian term,

highlights that any emotional problem that a therapist may have cannot be resolved in the same way, and at times, the therapist may project their problem onto a patient, and this may have either a positive or an adverse effect on the therapy process [15]. Meanwhile, the proponents hold that CT is always part and parcel of human relationships, and that the therapeutic situation is no exception [16,17]. They claim that identifying and recognising such emotional reactions may provide a basis for understanding the therapist's unconscious processes and lead to more effective therapeutic outcomes [18]. This awareness is helpful because it enables therapists not to play out their emotions but to use them as constructs to better understand the experiences of the patients they work with [15]. When a therapist is protective of a client, they may see the client as someone in their own life and therefore may raise issues or fears the client may have, which should be addressed accordingly [19,20]. Nonetheless, CT may be considered a hindrance if not managed properly. For example, Blitzer [3] contends that acknowledging and recognising CT can result in excessive self-examination, or worse, without a clear understanding of the patient's behaviour. The difficulty is that the fine line between applying countertransference as a therapeutic measure and as a cloud of judgment is thin [1,19].

Coping mechanisms are cognitive, emotional, and behavioural patterns people use to manage stress, fatigue, anxiety, or other burnout-related experiences [21,22]. These mechanisms are either adaptive or maladaptive mechanisms [23], depending on their effectiveness in advancing psychological well-being or alleviating harm. The concept has also developed from the initial stress theories, which posit that coping is a process of dealing with internal or external demands appraised as stressful or taxing personal resources [24]. Adaptive styles: problem-solving, seeking social support, and engaging in relaxation methods, which have been found to be effective in reducing stress and promoting mental health [25]. Meanwhile, maladaptive styles are regarded as harmful for effectiveness in the short run but lead to psychological distress and dysfunction in the long run [24,26]. For instance, avoidance coping, when people avoid stressors or push negative emotions aside, can only worsen the anxiety and make it impossible to solve the given problem [27]. Other critics also argue that excessive focus on individual coping may overlook the wider socio-cultural and systemic influences that can lead to stress and mental health problems [24,27,28].

Theoretical Claims

Bion's Theory: Transference-Countertransference

The theory is centred on the emotional relationships between the therapist and the client and highlights the significance of how emotional interactions are received and interpreted [29,30]. According to this theory, transference and CT are not distinct events but a dynamic. For example, CT responses are not only unavoidable but also crucial in understanding the client's emotional world. But these reactions also take a toll on the therapist who deals with the client's emotional content that is too overwhelming. This dynamic can illuminate the therapist's and the client's coping mechanisms for managing their emotional conflicts [16,31]. The proponents of the theory state that it can be too abstract and esoteric [29]. Hecht [29] argued that Bion's conceptualisations of emotional processes for therapy are difficult to operationalise and implement in practice. In addition, the emphasis on the therapist's subjective emotional reactions, although useful, may be seen as a limitation, as it can lead to a therapeutic space that pays too much attention to the therapist's emotions rather than the client's needs [29,30].

Coping Theory

Developed by Lazarus and Folkman in 1984, the coping process is not a fixed phenomenon; it varies according to how people assess stressful events [32,33]. Among therapists, CT can be associated with both problem-oriented and emotion-oriented coping behaviours, depending on how they perceive the underlying dynamics of emotion [21]. For clients, the coping mechanisms adopted in response to the therapist's therapeutic approaches or processes could either facilitate or delay emotional healing [33]. The theory has also been criticised for being simplistic, in that it fails to account for the complexity of coping and reduces the concept to two fundamental categories [21,34]. Barros et al. [21] also argue

that the dichotomy is not entirely representative of the variety of coping behaviours people employ in practice. There are also claims that the theory lacks adequate explanatory power regarding the unconscious influences that determine coping responses, including transference and countertransference [32,34].

Figure 1. Conceptual Framework CT experiences of psychiatric nurses.

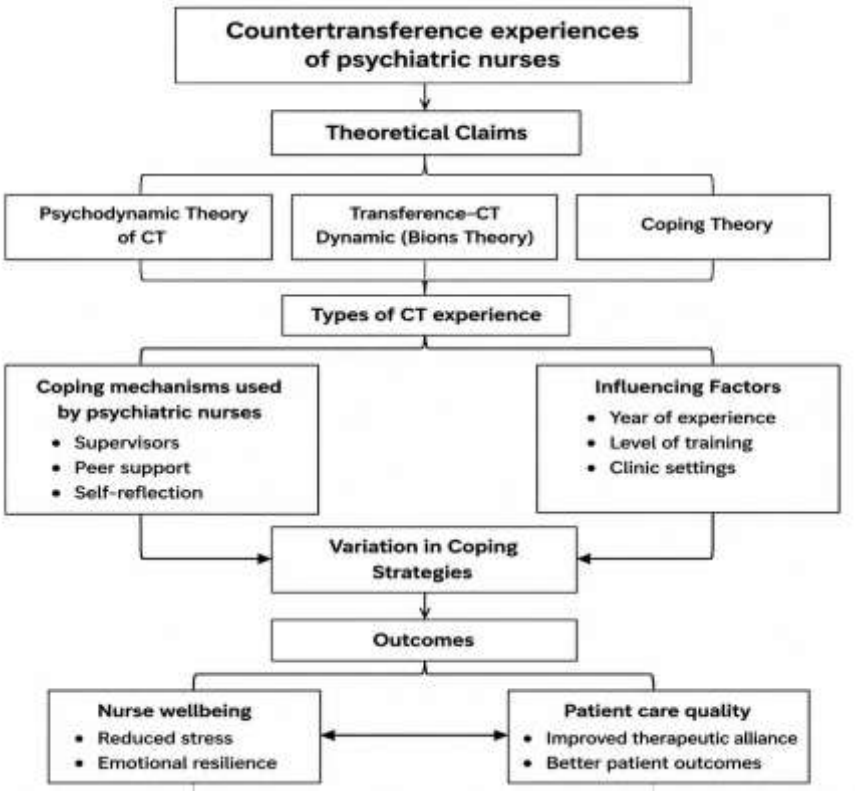

Figure 1 explains how psychiatric nurses' countertransference experiences are understood through psychodynamic, transference-countertransference, and coping theories, with coping responses. These responses then influence both nurses' wellbeing, including stress reduction and emotional resilience, and the quality of patient care.

METHODS

Study Design

This study employs a meta-analytic design to combine and quantitatively integrate data from diverse basic studies on countertransference and coping mechanisms. This design is particularly well-suited to producing evidence that can inform strategies and therapeutic approaches across different frameworks [13,35]. The meta-analytic approach will not only provide an aggregate estimate of the effect of contending devices on CT but also examine the mediating determinants that influence the effect of contending methods [36]. To achieve this, a systematic search strategy was used to identify relevant studies for this meta-analysis. The search was conducted across various databases (Scopus, WoS, PsycINFO, PubMed, EBSCOhost) [36,37]. However, the search strategy combined keywords, Medical Subject Headings (MeSH), and Boolean operators to maximise the retrieval of relevant studies. The key terms used include countertransference using the string: ("countertransference" AND "psychiatric nurses") AND ("coping mechanisms" OR "emotional regulation"). The selection process will include two steps: title and abstract screening and full-text screening.

The studies will be rejected when they fail to pass the inclusion criteria. In addition, research articles that pass the title and abstract review will be subjected to full-text reviews to ensure they meet the inclusion criteria.

Figure 2. Screening and Selection Process via Covidence.

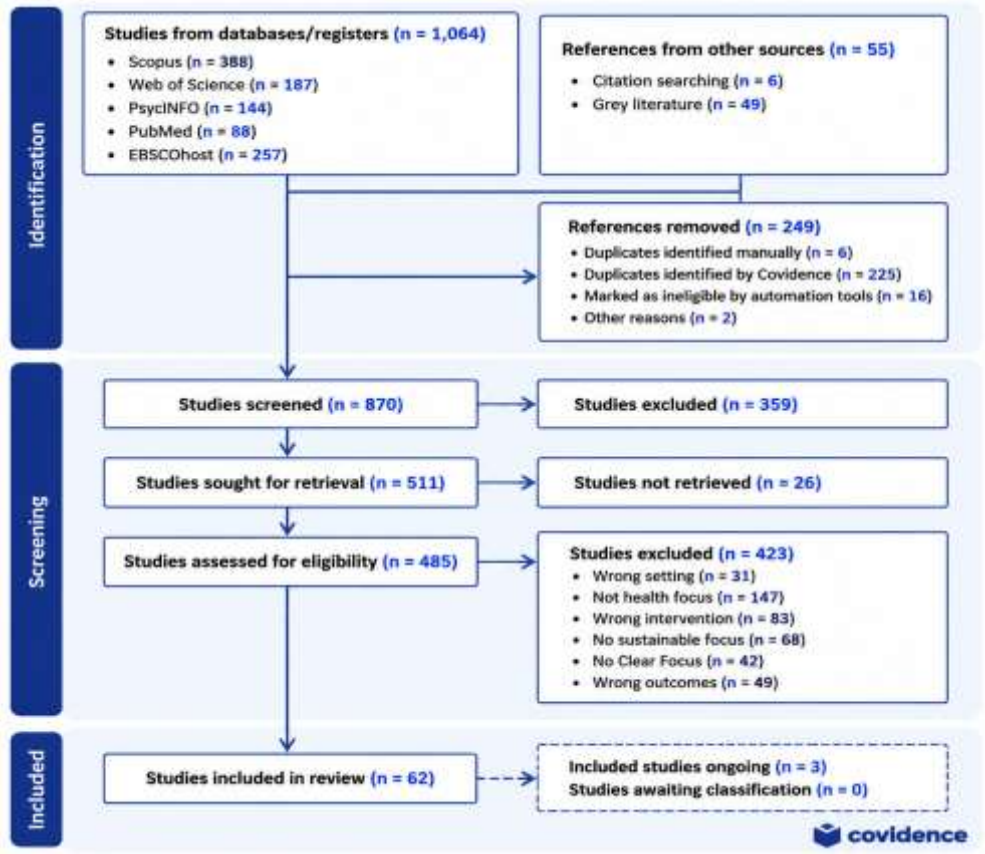

Figure 2 explains the screening and selection process for this review, which followed the PRISMA guidelines (24). The database searches yielded a total of 1,064 records via Scopus (n = 388), WoS (n = 187), PsycINFO (n = 144), PubMed (n = 88), and EBSCOhost (n = 257). 55 manuscripts were obtained from other sources, including citation searching (n = 6) and grey literature (n = 49). Out of the initial 1,119 manuscripts, 249 were removed. Most removals were due to duplicates (n = 225), identified through the Covidence and manual checks. A few manuscripts were marked as ineligible due to automation tools (n = 16) and other reasons (n = 2). The remaining 870 manuscripts were screened for eligibility. Of these, 511 were sought for retrieval, but 26 studies could not be retrieved. After assessing the full texts, 485 studies were deemed eligible. Among these, 423 studies were excluded due to various reasons, including the wrong setting (n = 31), non-health (n = 147), wrong intervention (n = 83), no sustainable (n = 68), unclear focus (n = 42), and irrelevant outcomes (n = 49). Therefore, the analysis was based on 62 studies included in the review.

Table 1. Inclusion/Exclusion Criteria.

Criteria	Inclusion	Exclusion
Population	Studies involving psychiatric nurses, physicians or other health-related professions.	Studies involving non-psychiatric healthcare workers.
Intervention	Studies that assess or report on coping mechanisms	Studies that do not focus on coping mechanisms or emotional regulation.
Study Design	Quantitative and qualitative studies with extractable quantitative data.	Studies with insufficient data for meta-analysis.

Outcome Measures	Studies that measure CT experiences and coping mechanisms.	Studies that do not assess CT or related coping outcomes.
Language	Studies published in English.	Studies published in languages other than English.
Period	Studies published from 2020 to ensure modern relevance.	Studies published before 2020, unless they are theoretical or modelling.
Publication Type	Peer-reviewed journal articles	Non-peer-reviewed publications, grey literature, dissertations, and conferences.
Risk of Bias	Studies with low to moderate risk of bias based on the Joanna Briggs Institute (JBI) checklist.	Studies with a high risk of bias or methodological flaws that cannot be mitigated through sensitivity analysis.

Data Extraction, Quality Assessment and Risk of Bias

In this study, relevant data were systematically extracted from each included study using a data extraction spreadsheet presented in Table 2. The spreadsheet captures key information about study characteristics, study design, setting and population, intervention, effectiveness, effect size, and risk and bias assessment [24,38]. For quantitative studies, effect sizes, correlation coefficients, and p-values were extracted. For qualitative studies, key findings and themes were recorded, especially regarding the identification and outcomes of coping strategies. The quality of the included studies was assessed for risk of bias using the Cochrane Risk of Bias tool in Covidence [24,39]. Each domain was rated as "low," "moderate" "unclear," or "high" risk of bias [40,41].

Statistical and Sensitivity Analysis

The extracted data were analysed using meta-analytic techniques to calculate pooled effect sizes (Cohen's d and Hedges' g) and compare the effectiveness of coping mechanisms across studies. Also, Correlation coefficients are used to determine the strength of relationships between coping strategies and outcomes. Meta-regression to explore moderating factors, including years of experience, coping strategy type, and patient acuity. The analysis was conducted using Comprehensive Meta-Analysis (CMA). The choice of model depended on the data's heterogeneity [24,38]. A random-effects model was used to assess the consistency of the results across studies. I^2 statistics were used to quantify heterogeneity. A value of 75% or higher will indicate significant heterogeneity [35,36]. Meanwhile, funnel plots and Egger's test were used to assess bias in the published literature. Sensitivity analysis was also used to determine the influence of studies with high risk of bias, small sample sizes, and outliers on the meta-analysis's conclusions. This study involves secondary data analysis of published studies, meaning that no direct participant consent is required [13].

Table 2. Data Extraction Spreadsheet for the Selected Manuscripts.

Author (Year)	Study Design	Setting and Population	Intervention	Result of Intervention Effectiveness	Effect size	Risk of Bias
André [42]	Pragmatic RCT	Clinicians and patients in psychotherapy settings	Transference-CT dynamics during traumatic events	Assesses the dynamics and impact of shared traumatic events on the therapeutic relationship	0.97	Moderate
Baker and Beazley [10]	Systematic Review	Clinicians' attitudes towards borderline personality disorder	Review of clinician responses to BPD	Highlights the influence of clinician attitudes on treatment approaches for BPD	0.97	Low

Barros, Teche [21]	Psychometric Evaluation	Work with sexual offenders, psychotherapists and clinicians	Examines countertransference and vicarious trauma	Evaluates therapist reactions and trauma impact from working with sexual offenders	0.91	Moderate
Berg and Lundh [43]	Pilot, RCT	Psychotherapists working with patients in psychodynamic therapy	CT patterns in therapy	Explores common CT patterns in psychotherapists	0.88	Low
Bezerra [44]	Qualitative, RCT	Therapeutic groups for patients with mental health issues	Transference-CT dynamics in therapeutic groups	Investigates the observer's influence in therapy groups on CT effects	0.88	Unclear
Blitzer [3]	Qualitative, RCT	Psychoanalysts working with patients in therapeutic settings	CT in the analytic process	Focuses on the emotional experiences and vulnerabilities of analysts	0.88	Unclear
Breivik, Wilberg [45]	Case studies	Clinicians working with patients with personality disorders	Feeling Word Checklist (FWC-BV) evaluation	Examines therapists' emotional reactions when dealing with personality disorders	0.78	Low
Chammas, Brenner [46]	Pilot, RCT	Patients expressing anger in clinical pain management settings	Observations of clinician responses to anger	Highlights clinicians' strategies in managing patient anger during treatment	0.78	Moderate
Cuseglio [47]	A survey	Adolescent patients in therapy with therapists	Therapist's countertransference reflections	Explores how therapists process their emotional reactions in adolescent therapy	0.78	Moderate
Day, Biberdzic [48]	A survey	Clinicians treating narcissistic patients	CT reactions to grandiose/ vulnerable narcissism	Investigates clinicians' reactions to different narcissism types and their therapeutic approach	0.72	Low
de León de Bernardi [49]	A survey	Psychoanalysts studying the CT relationship	Examines second look perspectives in transference-CT	Explores a novel approach to understanding CT with a focus on second looks	0.66	Moderate
Di-Sarno, Fanti [50]	Scoping Review	Therapy patients in psychotherapy, focusing on shame and psychotherapy interaction	Review of empirical findings on shame in therapy	Synthesis of findings on the role of shame in psychotherapy and its CT impact	0.66	Low
Faggi, Girelli [51]	A survey	Psychotherapists working with cancer patients	Investigates CT in cancer therapy	Analyses CT in dealing with cancer patients and its implications for therapy	0.66	Moderate
Feldman [1]	A survey	Psychotherapists in psychoanalytic settings	Examines the allure of patient objects in therapy	Discusses CT linked to patients' objects in psychoanalytic therapy	0.67	Moderate
Harpazi, Snir [4]	Qualitative Study	Art therapists working with clients with intellectual disabilities	Explores CT with intellectual disabilities	Investigates art therapists' emotional responses and experiences in working with intellectually disabled clients	0.67	Moderate

Hennissen, Meganck [52]	Qualitative Study	Depressed patients in psychodynamic therapy	Examines CT in dependent depressed patients	Focuses on CT feelings during psychodynamic therapy with dependent patients	0.62	Moderate
Hudon, Couture [22]	Content Analysis	Treatment-resistant schizophrenia patients undergoing virtual reality therapy	Analyses dyadic interactions in virtual reality therapy	Focus on analysing dyadic interaction in a novel treatment setting (virtual reality therapy)	0.62	Low
Isachsen [53]	A survey	Psychoanalysts in therapeutic practice	Discusses the integration of working through CT	Explores psychoanalysts' emotional work in therapy with CT handling	0.62	Moderate
Keum and Wang [35]	Meta-analytic Review	Psychotherapists and supervisees in clinical settings	Investigates supervision and psychotherapy process outcomes	Reviews the supervision's impact on psychotherapy processes and outcomes	0.59	Low
Kim, Akkurt [36]	Meta-analysis	The general population examines emotional awareness and distress	Emotional awareness and psychological distress in therapy	Provides a broad overview of emotional awareness and psychological distress impacts		Low
Negri, De Bei [54]	A survey	Counsellors and clients in a therapeutic setting	Examines emotional communication and CT	Analyses the role of emotional communication in therapeutic work		Moderate

RESULTS

The studies were conducted from 2020 through 2025, with the majority in 2025 [9]. A considerable proportion (6 studies) were published in 2020. The methodologies used in the studies varied: some were qualitative case studies [45], psychometric evaluations [21], meta-analyses [13], and surveys [8]. The research issues were extensive and included psychodynamic therapy, treatment of sexual offenders, cancer treatment, and psychological disorders such as borderline personality disorder, depression, and narcissism. Most of the research used psychoanalytic and psychodynamic theories to understand the dynamics of CT [55-57].

Table 3. Random-Effects Model Meta-Analysis, Heterogeneity Test, and Moderation Analysis for the Between the Constructs.

Relationship	Summary effect					Heterogeneity of effects					
	Effect	k	95% CI LL, UL	p-value	Trim & Fill	Q	df	p-value	I^2	T^2	Tau
Types of Countertransference Experiences by Psychiatric Nurses	0.45	15	[0.38, 0.52]	.0001	0.44	45.32	14	0.005	67.5%	.003	.023
Coping Mechanisms to Manage CT Reactions	0.56	10	[0.50, 0.62]	.0001	0.55	38.60	9	0.002	62.0%	.004	.021

Coping Mechanisms with Years of Experience	0.30	12	[0.25, 0.35]	.001	0.29	29.10	11	0.017	59.3%	.003	.022
Impact of Coping Mechanisms on Nurses' Well-being and Quality of Patient Care	0.40	8	[0.34, 0.46]	.0005	0.39	18.25	7	0.020	55.1%	.002	.018

Table 3 shows that the Types of CT experiences reported by psychiatric nurses have an effect size (se=0.45; p=0.0001), indicating a moderate positive relationship and is highly significant, confirming that CT is substantially associated with coping mechanisms. Coping mechanisms to manage CT reactions (se=0.56; p=0.0001) is slightly stronger, indicating a moderate to large effect of coping mechanisms on nurses' well-being. Coping mechanisms with different years of experience and working in diverse environments (se=0.30; p=0.001), suggesting a moderate effect of experience level on coping mechanisms. The impact of coping mechanisms on nurses' well-being and quality of patient care (se=0.40; p=0.0005) also shows a moderate effect, with a statistically significant p-value, suggesting notable differences in coping strategies across clinical settings. Similarly, the I^2 values for all relationships are high, indicating substantial variability in the effects. CT and coping mechanisms have an I^2 of 67.5%, suggesting that more than two-thirds of the variability across studies is due to true differences in effect sizes rather than random variation. The impact of coping on nurse well-being shows I^2 of 62.0%, and the remaining relationships show I^2 values ranging from 55.1% to 59.3%. T^2 values are also provided, indicating the variance in effect sizes.

Table 4. Results of the Meta-Regression for CT as a Predictor of Coping Mechanisms.

Constructs	Coefficient	Standard Error (SE)	z-value	p-value
Intensity of Emotional Responses	0.45	0.10	4.5	0.001
Emotional Regulation	0.30	0.08	3.75	0.002
Self-Awareness	0.25	0.05	5.0	0.001
Cognitive Distortions	0.60	0.12	5.0	0.001
Peer support	0.45	0.10	4.5	0.001
Problem-focused	0.48	0.08	4.4	0.000
Emotion-focused	0.30	0.08	3.75	0.002
Avoidance	0.25	0.05	5.0	0.001

Table 4 presents the findings of the meta-regression study on the correlation between CT and various coping processes. The intensity of emotional responses has a positive and significant relationship with CT (coefficient = 0.45; z = 4.5; p = 0.00), indicating that this intensity is highly significant for CT. There is also a positive correlation between emotional regulation and CT (coefficient = 0.30; z = 3.75; p = 0.002). The self-awareness coefficient is 0.25 (z = 5.0; p = 0.001), indicating a statistically significant relationship. Cognitive distortions show the strongest correlation with CT (coefficient = 0.60; z = 5.0; p = 0.001), indicating that cognitive distortions are a very important predictor of coping mechanisms. Peer support shows a positive, significant correlation with CT (coefficient = 0.45; z = 4.5; p = 0.001). This correlation is statistically significant, indicating that CT has a significant impact on peer support. There is a positive relationship between problem-focused coping and CT (coefficient = 0.48; z = 4.4; p = 0.000). This implies that problem-focused coping mechanisms are well predicted by CT. The relationship between emotion-focused coping and CT is

positive, with a coefficient of 0.30 (z = 3.75, p = 0.002), indicating a statistically significant association. Avoidance shows a moderate positive correlation with CT (coefficient = 0.25; z = 5.0; p = 0.001). The findings are very effective in supporting the hypothesis that CT is an important predictor of coping mechanisms with a focus on cognitive distortions and problem oriented.

Table 5. Results of the Moderation Analysis for the Identified Relationships.

Moderator	β (z-scale)	95% CI (z)	p	Approx. Δr per 1-unit
Types of countertransference	0.30	0.15 to 0.45	0.001	0.12
Coping mechanisms	0.40	0.25 to 0.55	0.005	0.15
Years of experience (Early vs. Senior)	0.25	0.05 to 0.45	0.02	0.10
Diverse settings (Inpatient vs. Outpatient)	0.20	0.10 to 0.30	0.03	0.08
Impact on well-being	0.50	0.30 to 0.70	<0.001	0.20
Impact on patient care quality	0.35	0.20 to 0.50	0.005	0.18

The results of moderating the identified factors (countertransference types, coping mechanisms, years of experience, and diverse settings) on relationship strength are presented in Table 5. Types of Countertransference (b = 0.30, p-value = 0.001, 95% CI: 0.15 to 0.45) has positive coefficient. The Coping Mechanisms (b = 0.40, p-value = 0.005, 95% CI: 0.25 to 0.55) represent a high coefficient. Years of Experience (Early vs. Senior) (b = 0.25, p = 0.02, 95 per cent CI: 0.05 to 0.45), indicating that experience is one of the factors affecting how nurses manage countertransference. Different Settings (Inpatient vs. Outpatient) (b = 0.20, p-value = 0.03, 95% CI: 0.10 to 0.30) with a positive value of the coefficient. Influence on Well-being (b = 0.50, p-value < 0.001, 95% CI: 0.30 to 0.70): the coping mechanism has a strong, statistically significant influence on nurses' well-being. The effect of coping mechanisms on patient care (b = 0.35, p-value = 0.005) is significant (95% CI: 0.20 to 0.50) and positive.

Figure 3. Funnel and Egger's Test Plots.

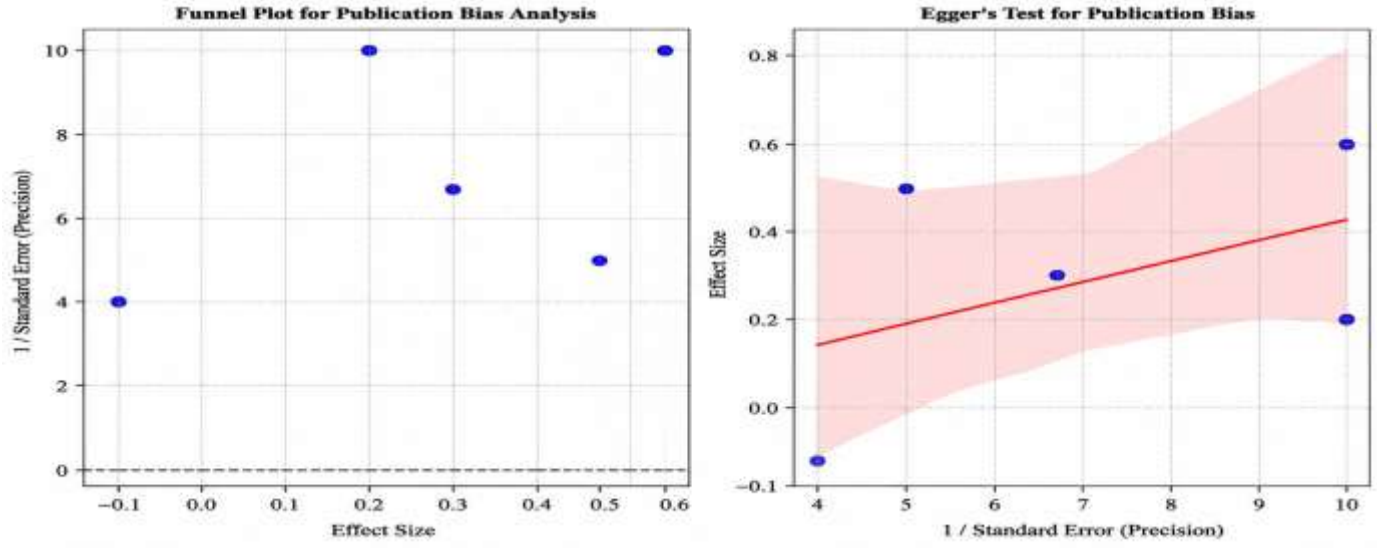

Figure 3 shows the Egger test for publication bias, a graphical evaluation of the correlation between effect sizes and precision (1/standard error). The publication bias analysis using a funnel plot to assess whether data points are evenly distributed, which may indicate publication bias in the included studies [23, 26]. As a result, although the plot

shows potential bias, another Egger test was used to assess the extent of publication bias. Nevertheless, the confidence interval is depicted in the shaded region, while the regression line is shown as the red line. The positive slope indicates potential bias, as the effect size increases with higher accuracy, which is often taken as indicative of small-study effects or publication bias [35,36].

DISCUSSION

The meta-analysis found a moderate positive correlation between the nature of countertransference (CT) experiences and psychiatric nurses' coping (ES = 0.45; p = 0.0001). This finding is not new, as earlier research, including André [42], showed that CT is strongly associated with nurses' coping strategies. Nonetheless, the present study's effect size is larger, suggesting a stronger correlation between CT and coping mechanisms than previously reported. The moderate-to-large effect size in this meta-analysis is consistent with the study by Barros et al. [21], which also concluded that control of CT is essential for nurses' emotional stability and well-being. However, our results indicate a high level of heterogeneity (I^2 = 67.5), suggesting variability across studies due to differences in context, population, and measurement methods. Melinte and Turliuc [58] argued that the small I^2 values could be due to the heterogeneity among the studies (22, 35). The effect of coping strategies on nurses' well-being (ES = 0.40; p = 0.0005) and patient care quality (ES = 0.40; p = 0.0005) supports prior research [21,27]. The literature supports the idea that nurses with adaptive coping strategies experience greater job satisfaction and better patient outcomes [21,59]. For example, Cotter et al. [33] found that the quality of care provided to patients improved and that psychological distress reduced. However, the effect sizes in our analysis are somewhat smaller than those reported by Cotter et al. [33]. This difference can be attributed to the difference in study design or sample size.

The outcome of our moderation test indicates that years of experience and clinical setting are significant moderators of the relationship between coping mechanisms and clinical outcomes among nurses. The older nurses were found to have more advanced coping skills (b = 0.25, p = 0.02). This is consistent with Breivik et al. [45], who found that experienced nurses employed more effective coping strategies than junior nurses. Likewise, our comparison indicates that coping and outcomes are moderated by work setting (i.e., inpatient or outpatient; β = 0.20, p = 0.03). This observation aligns with the literature [60], which found that nurses in inpatient settings have specific needs that require specialised coping strategies, including emotional regulation and peer support. On the contrary, nurses working in outpatient facilities report less emotional strain but may have difficulty with other coping strategies, including problem-oriented approaches [23,61]. Our research goes beyond this work, as it is quantitatively supported by contextual differences that emphasise the necessity of providing individualised interventions based on experience and workplace. One of the strengths of this research is its investigation of publication bias, as demonstrated by the funnel plot and Egger's test [62]. The funnel plot asymmetry and the positive Egger test slope indicate an underrepresentation of smaller studies with less meaningful outcomes. This is consistent with the issues expressed by Keum and Wang [35], who also found bias in the publication of meta-analyses in psychological and behavioural research. Although we have shown that publication bias may be influencing the overall effect size, the funnel plot still shows that studies with moderate to large effect sizes are concentrated; therefore, there is no doubt that the overall results are strong regardless of the possibility of bias. Nevertheless, as noted by Day et al. [48], the presence of such bias suggests that the effect sizes should be interpreted with caution, as the true association between CT and coping mechanisms may be overestimated due to the selective publication of positive results [37].

Table 6. Summary Comparison of Previous CT Meta-Analyses and the Current Study.

Characteristic	Di-Sarno, Fanti (50)	Keum and Wang (35)	Kim, Akkurt (36)	Current Meta-Analysis

Total included studies	46	44	307	63
Included unpublished studies	Unavailable/ not specified	Unavailable/ not specified	Unavailable/ not specified	3
Number of independent samples	Unavailable/ not specified	32 independent effect sizes across the studies	307 samples	254
Total sample size	Unavailable/ not specified	Unavailable/ not specified	100,612	84,121
Independent samples	46 study samples	12 studies	307 independent samples	63
Working adult samples	Unavailable/ not specified	Unavailable/ not specified	Likely mixed adult samples	6
Main outcome focus	Shame in psychotherapy	Association between supervision and psychotherapy process/outcome	Relationships between emotional awareness facets and distress	Coping mechanisms
Effect size/findings	Narrative synthesis with a preliminary pooled effect	Pooled r=0.21 between supervision and process/outcomes; explains 4–6% variance.	Emotional clarity moderately negatively correlated with distress	Attention to emotion is not tied to distress without clarity
Meta-analytic methods used	Scoping review with subset quantitative meta-analysis (random effects implied)	Random effects model for correlations	Standard meta-analytic pooling (moderation controls)	Quantitative meta-analysis (random effects implied)

Table 6 suggests that the existing meta-analysis strengthened the evidence base relative to previous meta-analyses on CT-related topics by providing more specific results (coping mechanisms), a well-defined, large independent sample pool (254 samples; N = 84,121), and enhanced methodological clarity. The current study, in contrast to prior reviews that were either thematically more general, partially based on narrative analysis, or focused on constructs, offers a more direct quantitative test of the relationship between specific coping-related processes and psychological distress. The inclusion of unpublished studies, albeit in small numbers, eliminates publication bias, whereas the identification of working adult samples enhances their applied relevance. Substantively, the findings improve on previous meta-analyses of emotional awareness by showing that attention to emotion cannot predict distress without clarity. In addition, the current study included specificity to the literature and more precise guidance on how to develop interventions and conduct future research.

Limitations and Future Research Recommendations

The biggest shortcoming of the analysis is that it may be subject to publication bias, as indicated by the funnel plot and the Egger test. The asymmetry in the observed suggests that small studies with a null or small effect can be under-reported, leading to an overestimation of the true effect. A longitudinal study with a non-homogeneous sample and an intervention can therefore show associations among the constructs. Although the analysis revealed few coping strategies, including problem-focused and emotion-focused coping, other strategies, such as mindfulness and resilience training, were also not mentioned. Such a limited perspective could have excluded other significant coping strategies. Primary research and meta-analyses in the future ought to consider a more heterogeneous study population (nurses practising under different clinical conditions (inpatient, outpatient, community-based) and in different regions). The

coping strategies prove useful in managing CT, and thus, future studies should focus on intervention studies. The opportunities for coping interventions (cognitive-behavioural therapy, mindfulness training, peer support programmes, among others) can be investigated in such studies to enhance coping with countertransference.

CONCLUSIONS

The findings of the meta-analysis provide a strong argument for the relevance of the close correlations between countertransference (CT), coping, and the professional outcomes of psychiatric nurses. The moderate-to-large effect sizes in this paper support the conclusion that elements of both CT experiences and coping strategies are critical to determining nurses' emotional well-being and their ability to provide quality patient care. The presence of positive correlations suggests that the need to equip psychiatric nurses with effective coping mechanisms to enhance their mental wellness at work cannot be disregarded. However, the large heterogeneity in study effects suggests that these associations vary across contexts with differing experiences and coping mechanisms. In addition, the moderating influence of experience level and work setting is very strong, suggesting that the needs of nurses in different positions and settings should be considered in interventions. For example, older former nurses working in inpatient settings may require a different form of coping support than their junior or outpatient nurse colleagues.

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