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REVIEW ARTICLE

Self-efficacy and Clinical Performance of Nurses Initiated and Management of Antiretroviral Therapy: Narrative Review

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Abstract:

Introduction:

Self-efficacy plays a major role in the behaviour of a human being by how he/she approaches a goal, task or a challenge so that a desired level of performance is produced. The objective of this paper is to review and analyse literature on self-efficacy and clinical performance among professional nurses regarding quality of care in implementation of NIMART programme.

Methodology:

A literature review was conducted using online resources. Search engines included EBSCO, Google Scholar, Medline, PubMed, Psych info and BIOMED Central articles and journals published between 2007 and 2017. Relevant papers on self-efficacy and clinical performance regarding the implementation of NIMART programme in South Africa were analysed.

Results:

278 papers were identified and 22 eligible papers were selected for analysis. Reviewed literature exhibited that self-efficacy is very crucial in the clinical performance of nurses in the implementation of NIMART. Self-efficacy helps to predict motivation and performance of individuals. Lack of mentoring, support and exposure to clinical practice had negative effect on nurse's self-efficacy.

Conclusion:

Given the paucity of information on self-efficacy and clinical performance of NIMART in the South African context, future studies are warranted to gain more understanding of self-efficacy in the clinical performance of professional nurses.

Keywords: Antiretroviral therapy, Clinical performance, HIV/AIDS, Literature review, Quality of care, Narrative review, Self-efficacy.

Article History

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1. INTRODUCTION

Self-efficacy is significant for attaining outcome or goals especially in the implementation of a learned skill [1]. Self-regulatory abilities are central importance for attaining personal goals of the individual [2, 3]. Self-efficacy plays a major role in the behaviour of a human being by how he/she approaches a goal, task or a challenge so that the desired level of performance is attained [4 - 6]. Self-efficacy is also crucial to obtain quality care of client especially those suffering from HIV/AIDS. The basic principle behind Self-Efficacy Theory is that individuals are more likely to engage in activities for

which they have high self-efficacy and are competent on those activities; and less likely to engage in activities they are not competent [7]. Therefore, self-efficacy can be improved by accomplishing small tasks and gaining confidence in one's ability and support from the experienced person or colleague [8 - 12]. Individual's sense of self-efficacy has an impact on performing a skill which can result in good or poor quality of care for clients [13 - 16]. Therefore, sound decision making in clinical performance is affected by one's self-efficacy, support and motivation.

There is limited literature in South Africa regarding self-efficacy in implementing Nurse initiated and management of Antiretroviral Therapy (NIMART) programme with a quality outcome. Therefore, this narrative review was conducted to analyse literature on self-efficacy and clinical performance for

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quality of care among nurses regarding the implementation of NIMART programme.

1.1. Nimart Practise

South African Department of Health identified a need to implement strategies to upskill nurses in the clinical management of HIV and AIDS, for effective and efficient management of people living with HIV/AIDS [17]. One of the strategies identified was the nurse-initiated management of antiretroviral therapy (NIMART) course. NIMART practise covers the following activities: (i) clinical aspects of HIV infection and AIDS *i.e.* staging; (ii) HIV management in adults and children, which includes opportunistic infections and their presentation and management; (iii) Initiation ART in adults and children, which includes classes of drugs and their modes of action; (iv) reading and implementation latest SA guidelines; (v) management of drug-related toxicities and including treatment failure; (vi) HIV in women; (vii) HIV and Tuberculosis (TB) comorbidity; (viii) ethics related to HIV and AIDS; and (ix) palliative care for People Living with Human Immune Virus (PLHIV).

2. MATERIAL AND METHODS

2.1. Search Strategy

A search was conducted using electronic database EBSCO, Google Scholar, Medline, PubMed, Psych info, BIOMED Central articles and journals published between 2007 and 2017 were selected for analysis. Studies were limited to self-efficacy and clinical performance, written in English language and published between 2007 and 2017.

2.2. Criteria for Selection of Articles

The retrieved articles were scanned for relevancy by reading their abstracts. The articles were relevant if these two key search words, 'self-efficacy' and 'clinical performance' were appearing in the article. Articles were also included if they have information on a relationship about self-efficacy and clinical performance. Only English written articles were reviewed and analysed. Table 1 shows the inclusion and exclusion criteria of articles for analysis.

3. RESULTS

The findings pertaining to self-efficacy, clinical performance and quality of care identified in various articles are presented in Table 2.

4. FINDINGS

4.1. Quality Appraisal of the Included Papers

The literature searched on self-efficacy and clinical

performance produced 278 published papers (Fig. 1). Forty-one duplicate papers were removed and 211 papers do not have information on self-efficacy, clinical performance, and quality of care, HIV/AIDS, antiretroviral therapy and literature review. Ultimately, 22 published papers were identified which meet the criteria for inclusion.

The findings of the published papers were highlighted in a narrative text (self-efficacy, clinical performance and quality of care) (Table 1). From included reviewed papers, 12 of the papers used quantitative approach [3, 6, 8, 17, 25] and 10 papers used qualitative approach [26 - 36]. These papers examined and narrated self-efficacy and clinical performance in different countries. The qualitative studies in this study had a common factor there is a relationship between self-efficacy and clinical performance. Self-efficacy plays a protective role when the person is experiencing emotional exhaustion and high stress conditions [27, 33, 34]. Therefore, a person who is emotionally exhausted has difficulty in performing the usual duties. Several studies [20, 28 - 31] indicated that shortage of personnel to perform specific duties at work place negatively affect self-efficacy of the nurses, and thus, can lead to poor performance due to demotivation. Other studies had evidence that mentoring, exposure to clinical skills, practise and support of personnel improves self-efficacy [3, 6, 8, 18, 21, 26, 32 - 34]. There is also empirical evidence that quality of care for the clients is affected if the nurses have low self- efficacy [19, 34, 36].

5. DISCUSSION

This narrative review of literature revealed that nurses do not have confidence to initiate clients on ART after NIMART training course. A need for on-the-job mentorship and support in order to maximise clinical outcomes related to HIV and improve self-efficacy of the professional nurses was suggested [17]. Therefore, mentoring and support of the professional nurses after training is important for nurses to develop self-efficacy in the initiation and management of clients on ART for better clinical outcomes. Nurses as the largest group within the multidisciplinary team, have a vital role to play if success is to be achieved [37]. Professional nurses are ideally committed to the broad aims of quality care; and their main concern to provide high standard services and to meet the needs of individual service users, their families, and communities [38 - 40]. Self-efficacy influences the task employees choose to perform and the goals they set for themselves [20, 21, 30, 31, 41]. Self-efficacy can affect people's behaviour positively or negatively, and this behaviour, may have an impact on one's performance and clinical outcome for the clients [10]. Self-efficacy and clinical performance have relevancy in health care practices. These practices are gained through knowledge and skills, therefore, the expectation is to have good clinical outcomes [7, 32]. Professional nurses need to be well trained,

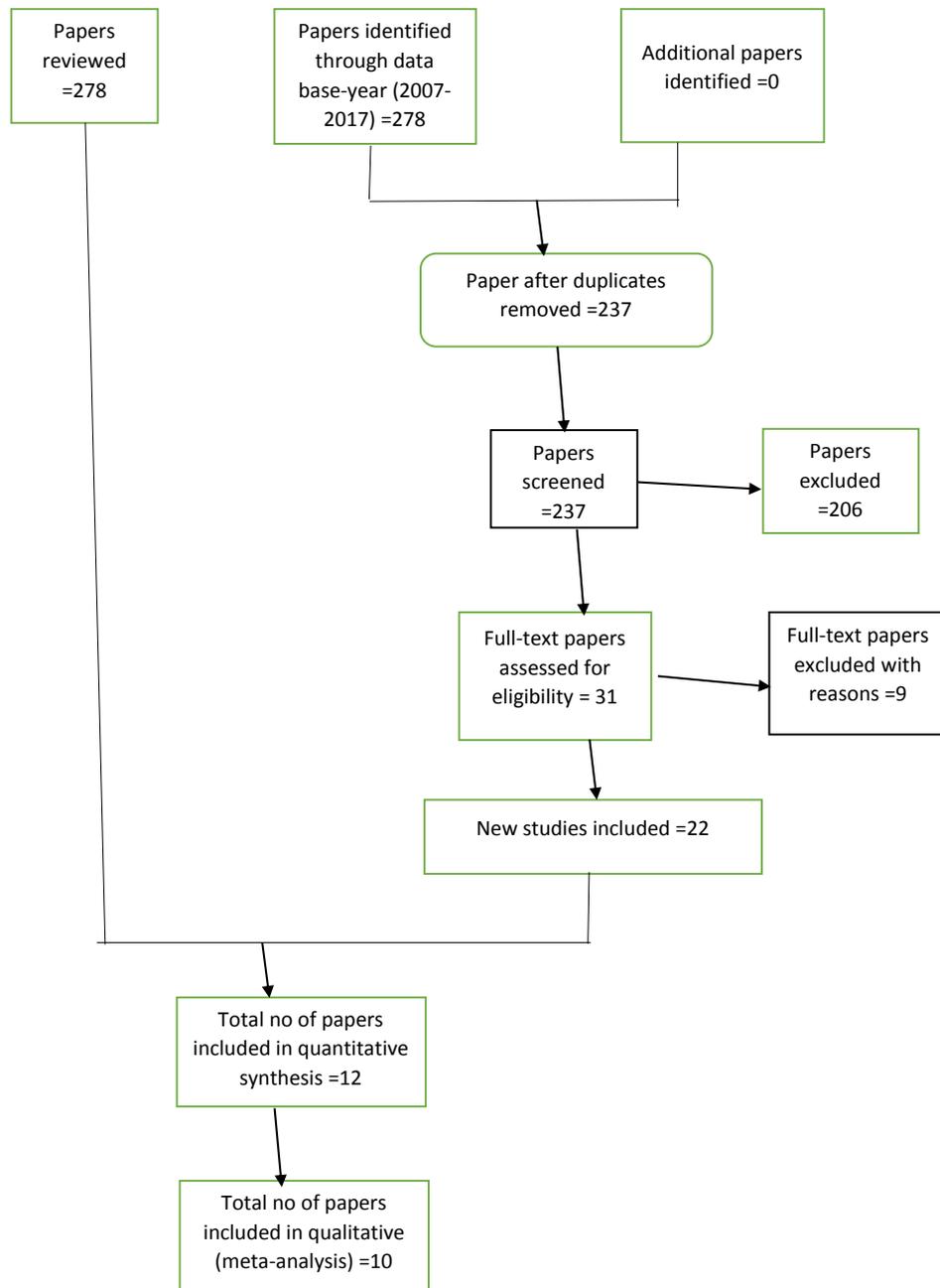


Fig. (1). Papers reviewed for analysis.

Table 1. Inclusion and exclusion criteria.

Inclusion criteria	Exclusion criteria
Articles published in English	Articles published in other languages
Articles that have information on self-efficacy clinical performance and quality of care, HIV/AIDS, antiretroviral therapy, literature review,	Articles that have no information on self-efficacy, clinical performance and quality of care, HIV/AIDS, antiretroviral therapy, literature review
Published articles on peer reviewed journals	Articles that were not published

Table 2. Selected papers for analysis.

Setting	Design	Sample	Themes/findings			Reference
			Self-efficacy	Clinical performance	Quality of care	
Vhembe, South Africa	Quantitative Descriptive, cross-sectional	233 nurses	-	Knowledge is the key for quality care of clients	-	[18]
Shiraz, Iran	Quantitative, cross-sectional	264 nurses	General Self-Efficacy is associated with the willingness to work in the nursing unit and interest in the nursing field and beliefs affect how people think, feel, motivate and act	-	-	[19]
Shiraz, Iran	Qualitative, Descriptive	12 students nurse	-	Clinical practise requires skilled personnel for quality care of clients, active involvement in practise makes a nurse more proficient, flexible and resourceful	-	[26]
Delhi, India	Qualitative, Explorative	79 participants	High self-efficacy seems to play a protective role from experiencing more emotional exhaustion when in high stress condition,	-	-	[27]
Tennessee, USA	Qualitative, descriptive	State agencies, advocate and attorneys, nursing facility representatives	-	-	Quality of care and quality of life have a long-standing concern nation-wide, in Tennessee home litigations negatively impact the quality and access of care	[28]
Halifax, Nova Scotia	Quantitative,	253 nursing students	Nursing Competence Self-Efficacy Scale (NCSES) The influence of well-prepared registered nurses who willingly embrace a challenge will likely to exert a positive influence in the entire health care system	-	-	[8]
Oshikati, Namibia	Qualitative Descriptive design	24 nurses	-	Shortage of nurses for clinical performance affect quality management of clients and outcomes	Nurses are vulnerable to emotional distress due to care of HIV people. Quality of for HIV client depends on the quality of care they receive from emotional nurses	[29]
Shiraz, Iran	Qualitative, content analysis	17 student nurses		Deficient in clinical practice skill affects the quality of care for the HIV affected client		[30]

(Table 2) *contd....*

Setting	Design	Sample	Themes/findings			Reference
			Self-efficacy	Clinical performance	Quality of care	
Mwanza, Malawi	Qualitative, descriptive	6 focus groups	-	Clinical performance is greatly affected by poor supervision, poor access to training, workload and extensive job description	-	[31]
Bonafide Benquet, State University, Philippines	Qualitative, descriptive design	1 focus group and 9 interviewed student nurses	-	Exposure to clinical practice is crucial for nurses, it enriches the nurse for better performance for client care, experience, knowledge and practice, these aspects develop the nurses' competency and confidence	-	[32]
Al-Quds University, Palestine	quantitative descriptive, explorative	185 professional nurses		Adequate number of qualified nurses according to work is essential in each shift for the quality of care for the clients	Shortage of nurses due to all types of leave negatively affects the quality of care and performance of nurses	[20]
Limpopo Province, South Africa	Quantitative descriptive, cross-sectional	85 nurses	-	Evidence of poor performance of nurses was due to the absence of support, motivation and good working environment.	-	[21]
Hospital, United States	Quantitative, Purposive	77 registered nurses	-	-	Ongoing learning and development of nurses is essential for quality of care because of continual advances in treatment and management of diseases	[22]
Australia and New Zealand	Qualitative, secondary analysis of interview	11 professional nurses	Nurses with high levels of self-efficacy demonstrate responsibility for their acts and omissions	Experienced professional nurses apply their skills to both novel and familiar situations. When they are competent, they are capable to adapt and flexible in response to any challenge		[33]
Bauchi Nigeria	Quantitative, Descriptive design	900 student nurses		Mastery of clinical skills is the key to clinical performance and confidence.	High level of stress, anxiety, shortage of equipment and staff may result in poor quality of care for clients	[23]
Namibia	Quantitative descriptive survey	180 professional nurses		Building knowledge and expertise will improve clinical performance, quality performance improves efficiency and confidence.	lack of recognition and support of the employee will affect the quality of care rendered	[24]
Nine European countries, Cyprus, Belgium, Finland, England, Ireland, Italy, Netherlands, Spain, Sweden	Quantitative design	1903 participants		Nursing requires both significant time spent with clients and supportive supervising relationship for the quality of care.		[3]
Iran	Qualitative	28 semi structured interview	Self-efficacy in clinical practice improves performance of health workers and quality of care for clients,			[34]

(Table 2) contd....

Setting	Design	Sample	Themes/findings			Reference
			Self-efficacy	Clinical performance	Quality of care	
Zimbabwe	Qualitative	25 nurses and 40 guardians		Adherence is mostly to succeed if there quality of care for clients and compassionate nurses		[35]
South Africa 7 provinces, Limpopo, Mpumalanga, Gauteng, North west, Free state, Kwazulu Natal, Northern Cape	Telephonic interviews	126 nimart trained nurses		Nurse management of ART had good accomplishment and retained more clients and had improved self-esteem of the nurses in initiation of ART.		[25]
Hiroshima, Japan	Cross sectional	322 nurses	Level of competency directly affects care provided to patients, therefore, nurses need to be competent			[6]
South Africa University of KwaZulu-Natal	Quantitative approach	1 369 nurse trainees			Despite the observed increase in knowledge, however, participants were not confident to initiate ART which suggests a need for an 'on-the job' mentorship programme for positive health outcomes	[17]
South Africa	Qualitative	Phase scale up design for doctors, nurses and clerks			Quality improvement technique can be used to assist to address system failure and quality care for clients	[36]

knowledgeable, confident and have clear job description for better clinical management of clients. Self-efficacy is not only needed on rational decision making, but also to build trust with clients in clinical management of HIV/AIDS affected clients [23]. Trust is important, especially in this era of HIV/AIDS prevalence because trust can influence a client to behaviour change. People with positive self-efficacy display mastery of their environment and more confident in acting safe and competent in challenging situations. Mastery experience is the most influential source of self-efficacy because it provides the most authentic evidence of whether one can master a skill and what it takes to succeed or reach a goal [22, 42]. Therefore, nurses who are the backbone of the Department of Health, need to be upskilled, motivated and supported to have confidence in implementing NIMART.

5.1. Negative Effects of Self-efficacy

Lack of social support, knowledge, practice, shortage of staff and work-load can affect self-efficacy negatively. These challenges can affect the quality of care delivered by the nurses for the clients [29, 33]. Lack of motivation and absence of hygiene factors were also identified as aspects that can lower self-efficacy of nurses consequential to poor clinical performance [20]. Lack of confidence in professional nurses in implementing NIMART can also lead to poor management of clients. People with lack of confidence exhibit low self-

efficacy which interfere with initiation and pursue of intentions of NIMART programme [8]. Therefore, experience, clinical practice, motivation, supervision, support and knowledge are needed to develop the nurse's confidence and morale [7, 42].

5.2. Positive Effects of Self-efficacy

Learning has a positive effect on self-efficacy in clinical performance of nurses as it increases their self-efficacy [8, 43]. Self-efficacy has been associated with enhanced motivation, strong self-direction and goal orientated. Therefore, positive self-efficacy will enhance clinical performance. Self-efficacy is also gained by modelling achievements from other people thus gaining self-efficacy in performing a task. Peer education, mentoring and working with patients also play a significant role in building self-efficacy in professional development [13, 44]. This explains that learning from peers in clinical practice is an important aspect in building self-efficacy. Therefore, sufficient skill and ability to perform a task are very important to enhance one's self-efficacy. High level of self-efficacy will result in high level of work performance; and there is a relationship between self-efficacy and work performance [19, 27]. High self-efficacy also plays a protective role from experiencing more emotional exhaustion when in stressful condition [27]. Therefore, self-efficacy is very crucial in clinical performance of health workers. Self-efficacy and resilience at workplace is a positive aspect in clinical practice

and can enhance confidence [26]. Employees that are motivated, well skilled, involved in practice are likely to perform to their best level, proficient and resourceful than those with low self-efficacy.

5.3. Comparison of South African NIMART with Other Countries

HIV/AIDS continues to be a global public-health problem, therefore NIMART is the best strategy identified to improve access to ART care. The Johns Hopkins University School of Nursing embarked on a transformative curriculum overhaul to integrate HIV prevention, treatment, and care into the Adult /Geriatric Nurse Practitioner Program. There is a need to implement strategies to upskill nurses in the clinical management of HIV and AIDS, for effective and efficient management of people living with HIV, in the South African context [17]. Therefore, a training on NIMART was conducted for nurses at the University of KwaZulu Natal. Upskilling nurses by training was conducted to ensure that they have the required knowledge to implement NIMART for access of care by clients [42]. However, there is a gap in implementing NIMART. The nurses indicated they need mentoring, support and practice to build confidence in order to manage those affected with HIV/AIDS.

Notwithstanding the implementation of NIMART in Kenya, nurses have gaps in training, competency, and practice in HIV care and treatment. It was recommended that further investment in nurse capacity building is needed to bridge the gaps and prepare nurses to provide high-quality, comprehensive HIV care and treatment [42]. Therefore, if the nurses are not well trained, their self-efficacy will be compromised by incompetency, resulting in poor management of the clients.

In a multi-country study conducted from 2007 to 2011 in five countries (Angola, Burundi, Lesotho, Mozambique and South Africa), successful ARV roll-out was observed, despite HRH shortages, skill scale up [44], which suggest that these countries have adapted a similar model of upskilling and mentoring as an antidote in speeding up the implementation of NIMART for the purpose of building self-efficacy in nurses.

CONCLUSION

This narrative review has shown that there are gaps in nurses' skills and self-efficacy regarding the implementation of NIMART. Experiential learning, support, supervision, skills update, mentoring and peer education are fundamental aspects to enhance self-efficacy and quality improvement in the management of clients by professional nurses. Several studies have alluded to the fact that self-efficacy is the motivation that a person needs to accomplish a task or a goal. Therefore, there is a need to motivate and build self-efficacy among professional nurses, especially in South Africa.

LIMITATIONS

Risk of biasness due to only two researchers viewed the literature for this study and only English written papers were included in the study.

LIST OF ABBREVIATIONS

AIDS = Acquired Immune Deficiency Syndrome

ART = Anti-Retro Viral therapy

ARV = Anti-Retro Viral

HIV = Human Immune Virus

NIMART = Nurse Initiated and Management of antiretroviral therapy

NCSES = Nursing Competence Self-Efficacy Scale

PLHIV = People Living with Human Immune Virus

TB = Tuberculosis

CONSENT FOR PUBLICATION

Not applicable.

CONFLICT OF INTEREST

The authors declare that they have no competing interest, financial or otherwise.

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Declared none.

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