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DEVELOPMENT AND PSYCHOMETRIC TESTING OF THE TOXIC LEADERSHIP BEHAVIORS OF NURSE MANAGERS SCALE (ToxBH- NM)

Abstract

Aim: This paper describes the development and testing of the psychometric property of the Toxic Leadership Behaviors of Nurse Managers Scale (ToxBH-NM).

Background: Toxic leadership is growing increasingly pervasive in the field of nursing. However, the current literature lacks comprehensive attempts to explain how toxic leadership disrupts work processes in the field of nursing, a reality confounded in part by the absence of a reliable and a valid scale on which to examine toxic leadership behaviors in nurse managers.

Methods: An exploratory sequential research design was used to formulate and evaluate the psychometric property of ToxBH-NM Scale. The content validity was examined by experts in nursing administration. A sample of 313 nurses from selected hospitals was recruited to assess the scale's reliability and validity. The factor structure of the newly developed scale was determined by exploratory factor analysis (EFA).

Results: EFA for ToxBH-NM Scale revealed 30 items loading on four factors. The overall Cronbach's α coefficient of the scale was 0.975, and Cronbach's α coefficient ranged from 0.895 to 0.965 for the four factors. Corrected item to total (0.310–0.69) and item to item correlations (0.47–0.66) were acceptable. The Scale-content Validity Index was 0.957, and the Item-content Validity Index ranged from 0.833 to 1.000. The test–retest reliability coefficient of ToxBH-NM Scale was 0.801, with a reliability coefficient that ranged from 0.745 to 0.911 for the four factors. The four factors explained 71.84% of the observed variance.

Conclusions: ToxBH-NM scale shows good psychometric properties and can be used to evaluate toxic leadership behaviors among nurse managers.

Implications for Nursing Management: The use of ToxBH-NM scale can aid nurse managers in better understanding and managing their own leadership behaviors within their organizations and in fostering desirable work outcomes among employees, a positive work-climate, and overall organizational success.

Keywords: toxic leadership, nursing, abusive supervision, nurse manager, narcissism, self-promotion, scale development

Introduction

The competitive landscape of today's health care sectors demands the involvement of engaging and inspiring leaders to meet consumer demands and expectations. In nursing, effective leadership is a core dimension of the management role, with substantial evidence showing its desirable outcomes in nurses, patients and their families, and the organization (Zaghini et al., 2020; Fontes et al., 2019). To date, most empirical investigations have largely concentrated on the positive and effective aspects of leadership, while assessment of ineffective and negative leadership has largely been ignored. According to Magwenzi (2018), viewing leadership in a positive perspective doesn't always correspond with today's reality of leader–follower models in many organizations. In fact, according to Roter (2017), many leaders with toxic behaviors do exist in many institutions, causing intentional or unintentional harm to their employees and

the organizations they work for. A survey by Vickers (2014) estimated that toxic leaders can adversely affect as high as 20% of employees around them in a given time, while more than 50% of employee experience working under and/or dealing with a leader showing toxic behaviors during the span of their entire career.

Toxic leadership, a negative leadership style, is broadly defined as a form of supervision where a leader employs organized, systematic, and persistent destructive behaviors that may bring harm to the entire organization (Webster, Brough & Daly, 2016). Often, toxic leaders display blatant disregard for the well-being of their followers and may even be destructive or abusive (Heppell, 2011; Milosevic, Maric & Loncar 2019). Behaviors indicative of a toxic leadership style include bullying, jealousy, micromanaging, unfair treatment, narcissism, unethical behaviors, autocratic behaviors, distrust of people, aggressiveness, intimidation, being manipulative, and being incompetent (Bakkal, Serener & Myrvang 2019; Milosevic, Maric & Loncar, 2019; Green, 2014). Other behaviors indicative of a toxic leadership includes using others to achieve their personal goals and interests, concealment of essential information intentionally, belittling employees' work and accomplishments, and making incorrect and manipulative appraisals regarding employees' abilities and their work performance (Smith & Fredricks-Lowman, 2019; Pelletier, 2012). Notably, toxic behaviors of a leader are not always visible and, at times, involve covert and passive acts such as a failure to support the employee and the perpetuation of insulting and offensive nonverbal gestures (Magwenzi, 2019; Milosevic et al., 2019).

Since the early 2000s, toxic leadership had been widely investigated and has arisen as an important determinant of job outcomes. Overall, previous studies conducted in various sectors, both private and public, have largely determined that being subjected to toxic leadership can adversely affect the physical and psychological health and well-being of an employee (Roter, 2016; Erkutlu & Chafra, 2017; Uysal, 2019). Working in a toxic environment is strongly linked with negative consequences such as a poor work performance, reduced job satisfaction, decreased organizational commitment, lower attendance, decreased work motivation, and low morale and may even facilitate deviant and negligent behaviors such as turnover intention, neglect of duty, and frequent absenteeism (Rodwell et al., 2014; Hadadian & Zarei, 2016; Hadadian & Sayadpour, 2018; Hyson, 2016; Morris, 2019). Furthermore, toxic leadership has the potential to destroy a fundamental sense of trust—a vital aspect in the achievement of organizational goals—between leaders and their followers (Pelletier, 2012; Stoten, 2015; Webster et al., 2016).

At the organizational level, persistent toxic leadership behaviors among leaders may result in a toxic organizational climate that may fuel the likelihood of even more toxic leaders developing (Shaw, Erickson, & Nassirzadeh, 2014; Erkutlu & Chafra 2017). Further, toxic leadership has the significant potential to cause financial losses to an organization due to unstable workforce as a consequence of nurse turnover and, if this type of leadership perpetuates throughout the organization, its very survival may become at stake (Boddy, Miles, Sanyal, & Hartog, 2015; Lipman-Blumen, 2010; Kılıç & Günsel, 2019). It is estimated that organizations may incur costs exceeding US \$1 million for every 10 employees who quit their job due to a toxic environment or approximately US\$23.8 billion annually (Holloway & Kusy, 2010).

Among other fields, toxic leadership is increasingly becoming pervasive in the realm of health care and nursing (Dellasega & Volpe, 2013). Available evidence suggests that persistent exposure to a toxic nurse manager or leader has the potential to undermine nurses' motivation and efforts and may result in adverse work consequences such as work discontentment, job

disengagement, low job performance, job burnout, and frequent absenteeism (Rodwell et al., 2014; Lavoie-Tremblay et al., 2016; Roter, 2016; Erkutlu & Chafra, 2017; Orgev & Demir, 2019; Mullen et al., 2018). Ultimately, this has even contributed to nurses leaving the organization and/or the profession entirely (Lavoie-Tremblay et al., 2016; Orgev & Demir, 2019). This has major financial implications for health care institutions as training new nurses requires a significant amount of time and capital investment (Roche, Duffield, Homer, Buchan, & Dimitrelis, 2015).

Despite the abundance of studies on this topic in various disciplines such the military, corporate companies, higher education or academia, and public sectors (Green 2014; Hadadian & Zarei, 2016; Hadadian & Sayadpour, 2018; Hyson, 2016; Morris, 2019), a comprehensive literature review revealed a paucity of studies exists pertaining to this topic and how this leadership behavior disrupts work processes in the field of nursing. This reality is further confounded by the absence of a psychometrically sound scale with which to measure toxic leadership behaviors among nurse managers. Currently, there is no unique data-collection tool available able to accurately measure toxic leadership in nursing. To date, only two scales were found in the literature that measure toxic or destructive behaviors among leaders in academia (Celebi et al., 2015) and the military (Schmidt, 2008). Although both tools are valid and reliable, their items may not accurately match with the very complex nature of the nursing profession. Hence, the present study was conducted to develop and psychometrically test a scale on which to measure toxic leadership behaviors among nurse managers.

Theoretical framework

The literature on the topic has not provided a specific theory that explains the emergence of toxic leadership; however, a few theories and models were found relevant to understanding leadership behaviours, such as the leader–member exchange (LMX) theory (Dansereau, Graen, & Haga, 1975) and the ‘toxic triangle’ (Padilla, Hogan, & Kaiser, 2007).

The LMX theory, also referred to as the vertical-dyad linkage approach – as a theoretical framework – proposes that every leader treats their followers differently. The theory states that a leader may favour some employees regarding promotions, support, recognition, autonomy, trust, and opportunity. As a result, some followers could view the leader as effective and ideal, while others view them as toxic and destructive (Dulebohn et al., 2012).

The ‘toxic triangle’ model, on the other hand, posits that destructive leadership is a product of the interplay between a destructive leader and a susceptible follower in an organisation conducive to toxic leadership (Padilla et al., 2007). Destructive leaders benefit from susceptible followers (employees who quietly submit to their toxic leader) in an unstable work environment where power is centralised, systems are weak, and poor checks and balance on power are in place. The convergence of these three elements: a destructive leader, susceptible follower, and the organizational environment, are often referred to as a toxic triangle (Thoroughgood & Padilla, 2013).

Aim

We sought to develop and psychometrically test the Toxic Leadership Behaviors of Nurse Managers Scale (ToxBH-NM).

Methods

Design

The exploratory sequential research design is thought to be the most straightforward approach in the sense that different types of data are collected in two different periods and each datum is collected one at a time. According to Kettles, Creswell, and Zhang (2011), this design is most applicable in areas in which little prior knowledge exists. The first stage, the qualitative phase, is essential to promote scale development where none is available and in the development of theory or hypotheses. The second stage, the quantitative phase, is essential in the evaluation of the developed scale and/or generalization of the results in the qualitative phase to a wider group (Doyle, Brady, & Byrne, 2016) (Figure 1).

Survey administration and sample size

This study included 313 nurses employed either in public or private hospitals in the Central Philippines. An optimal range of 200 to 300 respondents was identified, based on previous studies, as being acceptable for factor analysis (Anthoine et al., 2014; Boateng et al., 2018). Registered nurses employed as hospital staff for more than one year holding either a full- time or part-time role were included in this study. Nurses working in health centers and academic institutions were excluded as well as those nurses with less than one year of work experience.

Scale development

The scale development and validation process in this study was based on the framework for **best practices for tool development by Boateng et al., (2018)**.

Construct identification and item generation

Both inductive and deductive methods were used to generate items for the proposed tool. Initially, a clear conceptualisation of the concept – via concept analysis – was established through an extensive review of literature on the topic, existing theories and models, and available instruments (i.e. the deductive method) (Schmidt, 2014; Ozer et al., 2017; Pelletier, 2010). The literature has provided various definitions of toxic leadership, each of which covers distinctive aspects of the construct. The term ‘toxic leadership’ has been used in the literature as a multidimensional construct that encompasses several related domains (such as narcissistic leadership, destructive leadership, and abusive leadership) of negative leadership (Estes, 2013; Ozer et al., 2017). Finally, the extensive review of the literature, past studies, and pre-existing scales generated 45 items.

In addition to the literature review, individual interviews (inductive method) were conducted to identify visible forms of the concept, rather than only relying on the theoretical standpoint. Data were collected from 15 hospital nurses to elicit information on their experiences of working under a toxic nurse manager or leader. Each interview comprised four questions that sought to identify toxic leadership behaviours of a nurse manager, as well as the different dimensions of toxic leadership. Before answering the questions, participants were asked to recall an incident where toxic leadership behaviours of a nurse manager were experienced or witnessed. Interview questions included: (1) ‘what specific behaviours were shown by the nurse manager that made them toxic?’, (2) ‘how did you reacted to the incident?’, and (3) ‘how did this incident affect you?’. Qualitative content analysis of the individual interviews resulted in 50 additional items, which were categorized under six themes: intolerant behaviour, narcissistic behaviour, self-promoting behaviour, autocratic behaviour, abusive behaviour, and mood swings.

The initial set of 95 items generated from the literature review and individual interviews were reviewed, compared, contrasted, and combined, resulting in 50 items that were categorised into the five hypothetical conceptual dimensions of nurse managers' toxic leadership behaviours: humiliating behaviour, narcissistic behaviour, self-promoting behaviour, autocratic behaviour, and intolerant behaviour.

Content validity

To appraise whether the items generated can actually measure the domain of interest, 10 experts in nursing administration (five from universities and five from hospitals) validated the content of the scale. The scale's content validity was ascertained by computing the content validity index (CVI) at both the item level (I-CVI) and the scale level (S-CVI/average). The panel of 10 experts also evaluated the relevance and clarity of the underlying domain or construct using a four-point scale ranging from one point (not relevant) to four points (highly relevant). The I-CVI score was analyzed by counting the number of experts who rated either three or four points, divided by the total number of experts. The following value range proposed by Polit and Beck (2018) was selected to guide the judgment of the relevance of an item: I-CVI of more than 0.79 = item is relevant; I-CVI of 0.70 to 0.79 = item requires revisions; I-CVI of less than 0.70 = item can be eliminated; S-CVI of 0.90 or higher = scale is acceptable.

Face validity

To examine the face validity of the scale, field pretesting was conducted using the draft survey items to target a population consisting of 60 nurses to ensure that items in the developed scale are relevant and clear to the intended respondents before the actual distribution of the survey is conducted.

TOBH-NM reliability

The inter-item/total correlation and Cronbach's α were used to appraise the internal consistency of the developed tool. Cronbach's α , which is commonly expressed as a number between 0 and 1, examined the scale items' internal consistency (Bonett & Wright, 2015). Higher scores (> 70 points) indicate adequate reliability. The inter-item/total correlation provides an assessment of item redundancy and is calculated using Pearson's r coefficient correlation. As a rule of thumb, an inter-item correlation within the range of 0.30 to 0.70 is desirable (Heale & Twycross, 2015).

Instrumentation

Three self-report scales were used to examine the criterion validity of the ToxBH-NM Scale as follows: the Perceived Stress Scale (PSS), the Job Satisfaction Index (JSI), and a single-item measure for turnover intention.

Psychological stress in nurses was examined using the 10-item PSS (Cohen et al., 2004). The PSS was originally constructed to examine life stress on a five-point Likert scale ranging from zero points (never) to four points (often). Examples of items include "in the last month, how often have you felt that you were unable to control the important things in your life?" and "in the last month, how often have you felt confident about your ability to handle your personal problems?."

Job contentment among nurses was determined using the JSI (Schriesheim & Tsui, 1980). This tool evaluates work contentment among nurses in the dimensions of work, supervisory support, coworkers, salary/wage, and job promotion using a five-point Likert scale ranging from zero points (strongly disagree) to five points (strongly agree). Examples of items include “I feel the health care facility provides a supportive environment in which to work” and “I feel I would be happy to work here until I retire.”

Nurses’ turnover intention or decision to quit from their current job was examined using the single measure “do you plan to leave your job within the next year?,” which was answerable as “yes” or a “no.” The Cronbach α of the PSS, JSI, and the single-item turnover intention measure in the present study were 0.92, 0.91, and 0.89, respectively.

Ethical considerations

Prior to data collection, the research protocol was submitted to the institutional review board of XXX for ethical clearance. Prior to the field survey, written consent for study inclusion was sought from identified participants. In addition, respondents were told that they could exit from the study at any time during the data-collection process. Data confidentiality and anonymity was maintained throughout all processes.

Data analysis

The Statistical Package for the Social Sciences version 21 software program (IBM Corp., Armonk, NY, USA) was used to analyze the data collected. The scale’ construct validity was examined using exploratory factor analysis (EFA) and guided through the following five-step process by the framework of Williams, Onsmann, and Brown (2010): (1) formulation of the objectives of the factor analysis, (2) design of the factor analysis, (3) assumption testing of the factor analysis, (4) factor formulation and assessment of the overall fit, and (5) factor interpretation and respecification of the factorial model. A principal component analysis with Varimax rotation was chosen for the analysis technique. Based on eigenvalues of 1 or more, the number of factors was identified. The internal consistency of the whole scale and subscales was evaluated using the inter-item/total correlations and Cronbach's α . Criterion validity was examined using Pearson's correlation coefficient.

Sample Characteristics

During a two-month data-collection period, 350 nurses were recruited to take part in the study. Of these, 313 responded (response rate: 89.42%). Respondents’ average age was 29.06 (standard deviation: 4.25) years. More than 50% of respondents were female (n = 180; 57.5%), married (50.5%), and almost all held a BSN degree (98.1%) and a full-time job (74.4%). Their average years of experience in the nursing profession was reported as 4.7 years, years of experience in the organization was 3.01 years, and years of experience in their present unit were 2.86 years (Table 1).

Content validity

The I-CVI of the ToxBH-NM items ranged from 0.833 to one point(s). Based on the value range (> 0.70 points) proposed by Polit and Beck (2018) for judging the relevance of an item, nine items were dropped, resulting in 41 items. The overall S-CVI was 0.975 points. Based on the experts’ comments and suggestions, a few items were also modified to enhance their clarity.

Face validity

Based on the result of the field pre-testing, a few items were modified to enhance their clarity; specifically, at this point, two items were modified and two items were deleted, leaving behind 39 items.

Item analysis

Three items were deleted after inter-total correlations. Corrected item- to- total correlations were acceptable, ranging between 0.310 and 0.69. Correlations ranged from 0.257 to 0.731, while corrected item-to-item correlations ranged from 0.47 to 0.66. Hence, at this point, two items were dropped, reducing the total number of items to 37.

Extraction of Factors

EFA was conducted to identify underlying factors of the remaining 34 items of the scale. Findings of the preliminary factor analysis showed a Kaiser–Meyer–Olkin (KMO) value of 0.96 ($p < 0.001$), which was above the desired value of 0.5 and indicates the adequacy of scale's items for factor analysis. Further, the factorability was confirmed for the 34 items with Bartlett's test of sphericity ($\chi^2 = 528$) = 10565.62; $p < 0.01$). The communalities test results range from moderately adequate (0.58) to highly adequate (0.86) (Table 2). The eigenvalues of 1 and above and scree plot outcomes guided the decision regarding the number of factors to be extracted. As reflected in Figure 3 and Table 2, four components were moderately distinguishable and explained 71.84% of the variance. Factor 1 had 15 items, factor 2 had nine items, and factors 3 and 4 had three items, for a total of 32 items.

To eliminate cross-loading and to obtain robust factors, small coefficients with absolute values below 0.50 were suppressed. This resulted in the removal of two items (i.e., “my nurse manager barely shows flexibility toward his/her staff” and “my nurse manager frequently changes the way he/she wants things are done in the unit”).

Reliability analysis

Prior to factor analysis, the Cronbach's α value of the scale was 0.923, while the total Cronbach's α value of the scale after factor analysis was 0.975, suggesting an excellent level of reliability. Cronbach's α values for the four factors were as follows: factor 1, 0.965; factor 2, 0.940; factor 3, 0.920; and factor 4, 0.895 (Table 3). The test–retest reliability coefficient of ToxBH-NM was 0.801, with a reliability coefficient that ranged from 0.745 to 0.911 among the four factors.

Criterion validity

Table 4 displays the correlation between the four factors of ToxBH-NM, turnover intention, job stress, and job satisfaction. Factor 1 correlated significantly with turnover intention ($r = 0.18$; $p > 0.01$). Similarly, factors 2 and 3 correlated significantly with job satisfaction ($r = -0.18$; $p > 0.01$ and $r = -0.11$; $p > 0.05$) and turnover intention ($r = 0.18$; $p > 0.01$ and $r = 0.14$; $p > 0.05$). Finally, factor 4 had significant correlations with job satisfaction ($r = -0.19$; $p > 0.01$) and job stress ($r = 0.15$; $p > 0.01$).

Scoring

With a range of 20 to 150 points, the summated score for ToxBH-NM can be interpreted as practically nontoxic (30–69 points), moderately toxic (70–110 points), and highly toxic (111–150 points).

Discussion

Despite the general agreement that toxic leaders exist, very few studies to date have attempted to describe toxic leadership behaviors among nurse managers and leaders and their effects on nurse and patient outcomes. Such a scenario is further confounded by the absence of a psychometrically sound scale able to measure toxic leadership in nursing. This paper presents a newly developed and tested measure to examine toxic leadership behaviors among nurse managers. ToxBH-NM was designed and developed based on an extensive literature search, a review of an existing leadership tool, concept analysis, and structured interviews.

ToxBH-NM's psychometric properties

The I-CVI of the ToxBH-NM items ranged from 0.625 to 1 and an overall S-CVI of 0.975 was suggested, both of which were within the I-CVI and S-CVI ranges proposed by Polit and Beck (2006). Further, items on ToxBH-NM were homogenous, relevant, functional, and not redundant as reflected by the inter-item/total correlations. With inter-item correlations of 0.257 to 0.731 and item-total correlations of 0.47 and 0.82, ToxBH-NM demonstrated a high level of internal consistency reliability. As a rule of thumb, an inter-item/total correlation within the range of 0.30 to 0.70 is desirable (DeVellis, 2012).

All four factors of ToxBH-NM accounted for 71.84% of the total observed variance. With regard to the psychometric properties of the tool, ToxBH-NM showed internal consistency with a Cronbach's α value of 0.975, which was comparably high relative to the acceptable range of 0.70 (Bonett, & Wright, 2015). With a test-retest reliability coefficient of 0.801, the scale demonstrated an acceptable level of stability. Bivariate analysis lent support to the criterion validity of ToxBH-NM; most of the factors of the tool correlated significantly with nurse outcome measures such as turnover intention, job stress, and job satisfaction.

Scale structure and contents

The four factors identified (i.e., intemperate behavior, narcissistic behavior, self-promoting behavior, and humiliating behavior) reflect the various aspects of a toxic leader and are largely supported by the literature (Bakkal, Serener & Myrvang 2019; Milosevic, Maric & Loncar, 2019; Green, 2014). During the early stage of scale development, five dimensions were identified; however, factor analysis subsequently identified only four dimensions. In addition, the subscale "humiliating behavior" was added, while the "mood swing" and "autocratic" subscales were deleted. Nevertheless, the identified factors were in accordance with criteria of a toxic leader identified by Reed (2004) such as a lack of concern for the welfare and well-being of their employees (intemperate behavior), presence of a personality that negatively affects workplace climate (self-promotion and humiliating behavior), and motivation being primarily driven by self-interest (narcissistic behavior).

Factor 1 was labeled as "intemperate behavior" given its contained items that reflect hostile actions or behaviors, either verbal or nonverbal, perpetuated by the nurse managers against subordinates reflecting a lack of emotional intelligence. Examples of this kind of behavior include unpredictable anger, outburst of emotion, undermining employees' contributions,

neglect, bullying, incivility, and public derogation. This factor corresponds with the contents of previous studies describing toxic behaviors of a leader as including emotional abuse, mistreatment, incivility, intimidation, coercion, and aggression (Burke 2017; Winn & Dykes, 2019).

Factor 2 which contains nine items, was labeled as “narcissistic behavior” as it involves behaviors or actions primarily driven by personal ambition and self-absorption. This factor included behaviors such as excessive self-centeredness, attention-seeking, grandiosity, increased sense of entitlement, and self-importance. This factor, too, corresponds with the descriptions of a toxic leader offered by previous authors (Erickson, Shaw, Murray, & Branch, 2015; Pelletier, 2012), lending support to previous research wherein toxic leaders were described as someone who only shows interest in a plan that suits them first and foremost that may not necessarily be what's best for the organization or for their team (Magwenzi 2018; Winn & Dykes, 2019).

The third factor was labeled as “self-promoting behavior” as it taps into actions or behaviors displayed to further one’s own growth and advancement, either personal or professional. Behaviors indicative of self-promotion include drastic changes in demeanor, involvement in deception to appear good to higher authorities, and taking advantage of staff. This factor provides support for the outcomes of existing studies, where toxic leaders were reported as someone who works only toward their own goals, who is more concerned with their position, and who may explore all possible means by which protect that position (Pelletier, 2012; Winn & Dykes, 2019).

Finally, the fourth factor, containing three items, was labeled as “humiliating behavior” as it involves actions that could embarrass or ashamed employees while ignoring their feelings. This includes behaviors such as having a lack of concern about employees and the organization and talking negatively about staff in the workplace. This factor corresponds with Green’s (2014) description of a toxic leader as someone who is inconsiderate and who lacks awareness about others’ feelings and how their actions and behaviors affect their employees.

Study Limitations

Despite the rigorous process followed to generate a psychometrically sound scale, few study limitations were observed that require careful consideration. First, the newly developed tool was created to quantify the toxic leadership behaviors of nurse managers as perceived by staff nurses and not by the nurse managers themselves. Second, although the data were collected from a few hospitals within a single region in the central part of the Philippines, other hospitals in other regions of the Philippines and elsewhere in the world were excluded, thus limiting the generalizability of our findings.

Implications for nursing management

The newly developed scale may be a potential reference for use by nurse managers and leaders to better understand and manage their own leadership behaviors within their organizations and to help foster improved employee work outcomes, positive work climates, and overall organizational success. ToxBH-NM as a reliable and valid tool can be used when designing leadership training sessions for both current nurse managers and leaders and those nurses aspiring to enter managerial roles. ToxBH-NM can also aid in self-appraisal and identifying personal leadership styles to facilitate personal and professional growth and development.

Conclusion

This paper presents a newly developed and tested measure to examine toxic leadership behaviors among nurse managers. ToxBH-NM was designed and developed based on an extensive literature search, a review of an existing leadership tool, concept analysis, and structured interviews. The tool consists of 30 items categorized into four factors that reflect the behaviors or actions of nurse managers that are considered to be destructive, dysfunctional, or toxic, including intemperate, narcissistic, self-promoting, and humiliating behaviors. The newly developed tool, ToxBH-NM, demonstrated good psychometric properties; hence, it can be used to examine and measure the toxic leadership behaviors of nurse managers from the perspective of staff nurses.

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Table 1: Characteristics of the Sample (n=313)

Age (years) [Mean=29.06; SD=4.25]	19-28	150	48
	29-38	157	50.2
	39 and above	6	1.8
Gender	Male	133	42.5
	Female	180	57.5
Marital Status	Married	158	50.5
	Unmarried	155	49.5
Education	BSN	307	98.1
	MSN/MAN	6	1.9
Job Status	Full time	233	74.4
	Part time	80	25.6
Experience in Nursing Profession		[mean=4.70;SD=3.02]	
Experience in the organization		[mean=3.01;SD=2.93]	
Experience in the present unit		[mean=2.86;SD=1.78]	

Table 2. Factor loading of the Toxic Leadership Behaviors of Nurse Managers Scale (ToxBH-NM) items

3.	My nurse manager shows arrogance to his/her staff.	0.825	0.761
4.	My nurse manager causes staff to try to "read" his/her temper.	0.759	0.732
5.	My nurse manager blames staff to save him/herself from shame.	0.806	0.718
6.	My nurse manager is rude and disrespectful to staff.	0.775	0.712
7.	My nurse manager allows his/her mood to command the climate of the unit or ward.	0.619	0.706
8.	My nurse manager does not value his/her staffs' contribution to the organization.	0.666	0.643
9.	My nurse manager belittles his/her staffs' work.	0.773	0.634
10.	My nurse manager initiates conflict among his/her staff.	0.711	0.619
11.	My nurse manager disregards ideas of his/her staff that are contrary to his/her own.	0.628	0.603
12.	My nurse manager easily gets annoyed when being questioned by her/his staff.	0.739	0.597
13.	My nurse manager ignores his/her staff as if they don't exist.	0.713	0.582
14.	My nurse manager punishes the	0.608	0.560

entire unit for mistakes made by one staff.		
15. My nurse manager does not trust anyone else to complete tasks effectively.	0.742	0.531
Factor 2: Narcissistic Behavior		
16. My nurse manager believes that the future of the unit or ward only goes well with him/her.	0.812	0.833
17. My nurse manager thinks he/she is always right.	0.732	0.761
18. My nurse manager believes that he/she is an extraordinary person.	0.708	0.755
19. My nurse manager cares only for his/her own ward/unit and not with others.	0.715	0.727
20. My nurse manager believes that he/she deserves the position that he/she is in to the full extent.	0.698	0.721
21. My nurse manager places his/her personal interest ahead of others.	0.721	0.705
22. My nurse manager declines to share the accountability of the mistakes which the staff make.	0.582	0.637
23. My nurse manager has a group of dedicated staff who implement his/her orders.	0.677	0.587

24. My nurse manager lies to his/her staff to get his/her way.	0.724	0.514		
Factor 3: Self-Promoting Behavior				
25. My nurse manager changes his/her behavior swiftly when his/her supervisor is present.	0.831	0.822		
26. My nurse manager employs in deception to look good to his/her superiors.	0.771	0.776		
27. My nurse manager only treats favorably those staff that bears profit for him/her.	0.822	0.774		
Factor 4: Humiliating Behavior				
28. My nurse manager repeatedly reminds staff of their previous mistakes.	0.790		0.745	
29. My nurse manager speaks negatively about his/her staff to other staff in the workplace.	0.771		0.718	
30. My nurse manager repeatedly reminds his/her staff that they are incompetent and inefficient at work.	0.795		0.605	
Eigenvalues	19.265	2.107	1.871	1.181
Explained variance (%)	25.341	21.947	14.415	10.133
Cumulative variance (%)	25.341	47.288	61.703	71.837

Table 3. Item number, mean, standard deviations, and Cronbach's alpha of the ToxBH-NM scale factors

Factors	Items	Cronbach's alpha	M	SD
Factor 1: Intemperate Behavior	15	0.965	1.79	0.59
Factor 2: Narcissistic Behavior	9	0.940	2.10	0.64
Factor 3: Self-Promoting Behavior	3	0.920	2.30	0.26
Factor 4: Humiliating Behavior	3	0.895	1.51	0.23
Tox-BNM Scale	30	0.975	1.93	0.43

Table 4. Correlations between ToxBH-NM Scale subscales, job satisfaction, job stress, and turnover intention

Factors	Job Satisfaction	Job Stress	Turnover Intention
Factor 1: Intemperate Behavior	-0.06	0.07	0.18**
Factor 2: Narcissistic Behavior	-0.18**	0.02	0.18**
Factor 3: Self-Promoting Behavior	-0.11*	0.04	0.14*
Factor 4: Humiliating Behavior	-0.19**	0.15**	0.06

* p < .05.

** p < .01.

Figure 1. Exploratory Sequential Design (Adapted from Kettles *et al.*, 2011)

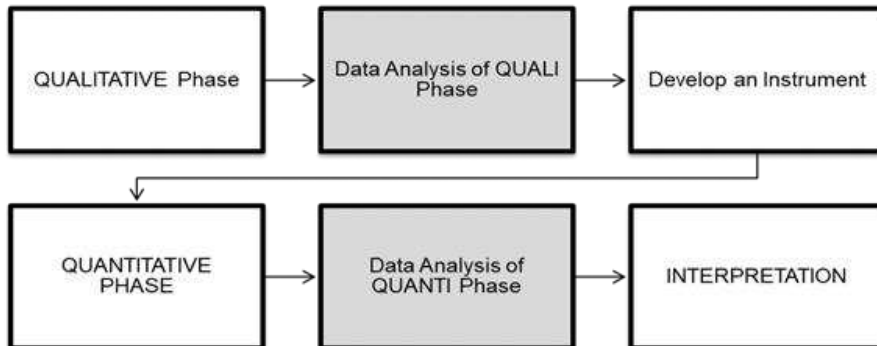


Figure 2. Phases in the Development of the Scale

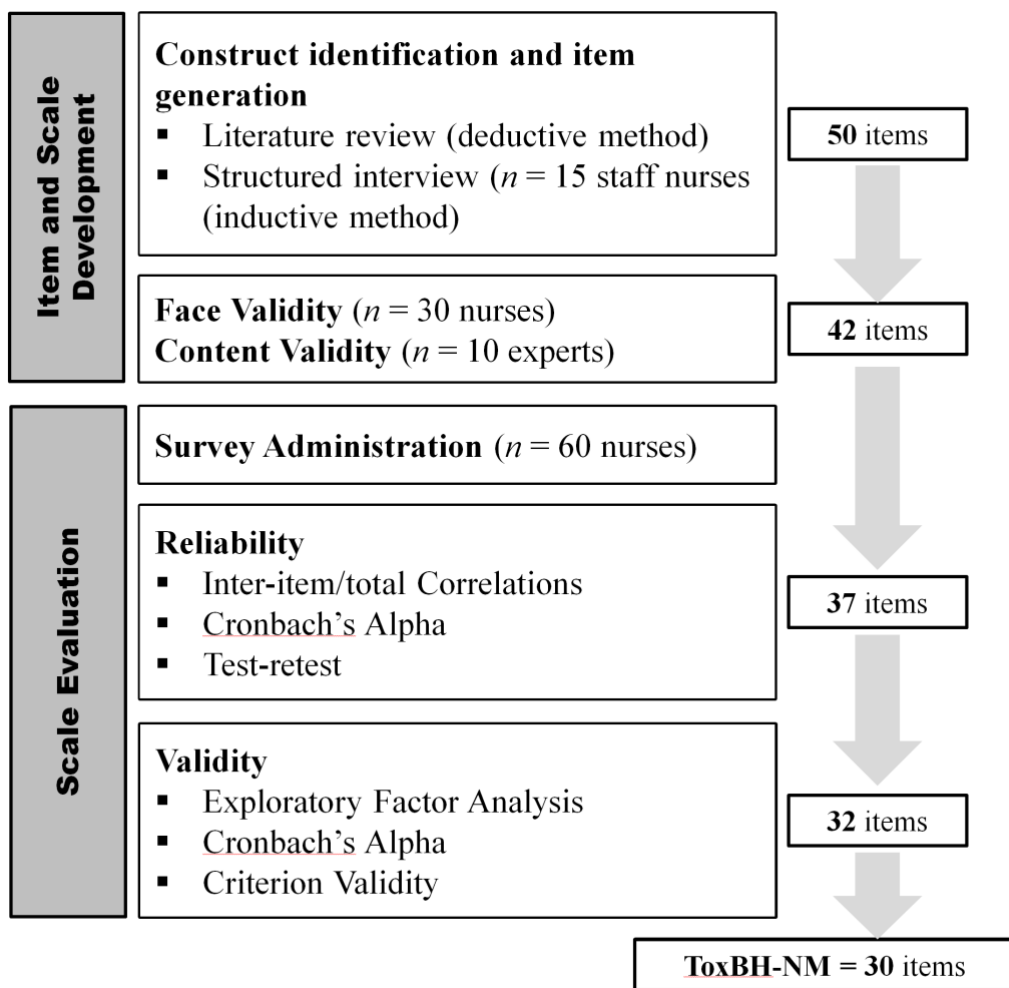


Figure 3. Scree Plot

