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ABSTRACT

The psychological factors associated with par nursing expertise were examined in a study of 135 certified nursing assistants (CNAs) at a geriatric nursing facility in Amarillo, Texas. Data were collected through a project-developed screening tool called the Geriatric Employee Screening Tool (GEST), which is a true-false instrument patterned after several existing personality profiles. The GEST's 207 items addressed the following basic personality dimensions that interviews with several nursing home directors established as critical for effective nursing: (1) conveying a sense of tenderness; (2) possessing a knowledge of the elderly; (3) approaching many areas of life with a strong sense of independence, assertiveness, and responsibility; (4) having a general sense of duty; and (4) willingness to accept a lack of order (in other words, showing more concern for large-scale duties than for minor duties). After the CNAs had completed the GEST, a four-member panel of supervisors and managers reviewed the list of participants and ranked them on a five-point Likert-type scale. A simultaneous, multiple-regression analysis technique was used to analyze the effects of the five variables against the participants' composite ranking score from their supervisor and manager. The model explained 36.6% of the adjusted variance and was deemed highly predictive. (Contains 28 references.) (MN)

Running head: PARANURSING EXPERTISE

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Psychological factors associated with paranursing expertise

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Abstract

Selecting and retaining high-quality nursing staff is a foremost concern for employers, but to date, there are no studies investigating the personality or factors that are associated with effective CNAs. In this study, 135 CNAs from an Amarillo geriatric nursing facility were administered the Geriatric Employee Screening Tool (GEST), which was designed for this study. An interview of several nursing home directors revealed five critical factors for effective nursing: tenderness, orderliness, dutifulness, knowledge of the elderly, and level of responsibility. Data was analyzed using a simultaneous, multiple-regression analyses to examine the effects of the five variables against the participant's composite ranking score from their supervisor and manager. The model was highly predictive and explained 36.3% of the adjusted variance.

Psychological factors associated with paranursing expertise

High rates of turnover are a serious hindrance to employers hiring certified nursing assistants (CNAs). Selecting and retaining high-quality nursing staff is a foremost concern for employers, but to date, there are no studies investigating the personality or factors that are associated with effective CNAs. Even the data regarding certified nurses is sparse, though, at least with this latter population there is a consensus regarding essential traits.

In regards to nurses, the most studied personality component involves “caring” (e.g., Eckberg, 1998; Morrison, 1991; Watson, 1979). March and McPherson (1996) surveyed both registered and student nurses and found that all student nurses and half of the registered nurses put the attribute of caring at the top of the list of important personality constructs. Higgins (1996) argued that caring is an essential component to the educational process of nurses. Watson (1979) spoke strongly about the role of caring in nursing, identifying it as a unique way of coping with the work environment. Watson and Lea (1997) attempted to operationalize caring by administering a Caring Dimensions Inventory. Such findings are common and, as indicated above, have long been advocated with the profession.

As the studies on caring suggest, the art of nursing lies within the affective domain. Other important dimensions of that domain are empathy (Evans et al., 1998) and compassion (Morgan, 1996). In a study examining essential competencies in outstanding job performance, Mulrooney (1997) identified both a view of the patients as worthy of care as well as empathy (or interpersonal understanding). Even among those nurses identified as merely adequate, some degree of empathy was required. The ability to empathize appears to be an essential component of nursing (Baillie, 1996). Morgan (1996) defined a related term, compassion, as an experience

of human involvement, encompassing emotion, benevolent intention, and extraordinary generosity. Nursing, Morgan concludes, is under a social mandate to promote the well-being of patients and themselves, and compassion is a guide towards meeting that mandate.

Other factors, however, have emerged and may also play critical roles in effective nursing. The oldest and most experienced respondents to Lea's (1997) survey ranked technical expertise as highly indicative of quality caring in nursing. Similarly, Coates (1997) found a significant correlation between nurses' self-assessments of caring orientation towards their patients, and their clinical competence. More recently, Muncy (1998) proposed that there is a reciprocal relationship between a nurse's ability to cope with the high demands of the job depends and his or her caring style and attributes. Nurses who can offer support and empathy will gain a sense of connectedness with patients, which will increase their performance and patient satisfaction. Together, this relational professionalism was argued to play a role in job longevity.

Other under explored personality traits may also be associated with effective nursing. The job can be extremely challenging and elicit a myriad of emotions. Anxiety often interferes with nurses ability to concentrate on their duties (Staden, 1998), but little is known about what characterizes nurses who cope successfully with emotional stress. As with studies on children from abusive environments, there appears to be a form a resiliency among certain nurses that protects them from harmful situations and leads nurses to effective stress-management (Dyer & McGuinness, 1996). Similarly, a sense of empowerment in their profession may increase a nurse's perception of his or her work (Kraimer, 1999). Kraimer concluded that self-determination is a precursor of impact, meaning that independence leads to a sense of power at work.

Related to empowerment and self-determination, the concept of autonomy has been identified by Cullen (2000) as a vital aspect of satisfactory nursing performance. Those holding the most advanced roles in nursing have accepted responsibility and accountability for their decisions, and therefore, exhibit the most autonomy. Cullen proposes that in order for the nursing profession to advance, all nurses must function as accountable (autonomous) professionals. This will in turn enable better coping in the work setting.

Autonomy, however, depends on several other factors. Nurses who have difficulty integrating experiences and information, or who have impaired ability to self-evaluate, will have low capacity for autonomy. Additionally, laws and economic and social circumstances inhibit autonomy, as do other personality traits (Seedhouse, 1999). Mood disturbances and anxiety, for example, are two empirically studied hindrances to nurses' performance. Healy & McKay (2000) found a significant positive relationship between nurses' stress levels and mood disturbance. Most clearly contributing to stress in their study were factors of heavy workload, inadequate staffing, and insufficient time to complete nursing tasks. Bocy (1999) reports that stress-resistant nurses with good mental health had higher self-esteem and an internal locus of control when compared to distressed nurses who reported poor mental health. Difficult patients challenge nurses' competence and control. If the nurse is willing to give the patient some control and choice in their own care, then feelings of anger are reduced (Breeze & Repper, 1998). Duquette (1995) referred to this emotional management as hardiness, and added that it is an important predictor in maintaining excellence in their field. Muncey (1998) studied attrition in the nursing profession and found that self-esteem and a need to be needed enabled adequate coping with the job.

It would appear that those who provide the best nursing care are those who are able to manage their internal cues while taking a holistic approach to caring for their patients (Coulon et al, 1996). While such findings have been commonly found for nurses, studies are only recently emerging that focus on optimal traits of nursing assistants, or paranursing personnel. Most of the published literature focuses on the problems of integrating paranursing personnel into the more highly trained professional nursing staff. The preoccupation with integrating nurse aids involves basically two main concerns. These include how to maximize their use (via effective training and appropriate delegation of duties), and how to retain these employees on the staff. For example, Mesriow, Klopp and Olson (1998) looked at the high turnover rate among nurse aides and devised a program of intervention that provided educational and organizational support designed to keep them from quitting. Similarly, Schur et al (1998) described steps to provide for the needs of nursing assistants in order to make them more committed. Gould (1999) reported on how these health care assistants can be motivated into further nursing education. Nikodym (1999) detailed a nurses' aide certification curriculum designed to upgrade the quality of care they provide. Education of these less-trained employees is the focus of many other studies (e.g., Barczak, 1999; and Gould et al, 1996).

Reidorfer, Pankonin & Larsen (1993) studied the negative impact on Registered Nurses when nursing assistants join the staff, and described strategies for improving the morale of the professional nurses. The unlicensed assistive personnel (UAP) movement has generated much concern for the quality of care being given in medical facilities where use of such employees continues to increase as a cost reduction measure. In their review of nursing research on the use of UAPs, Krainovich-Miller et al (1997) discussed the unanimous call for proper management of these personnel. They concluded that it is the duty the professional staff to train and properly

guide paranursing employees, a development which serves to complicate the already-demanding nursing field.

In all the literature on paranursing personnel, no studies have been published to date that examine optimal personality traits for success in that career. While on the one hand it seems logical to extrapolate that the same personal characteristics contributing to excellence in professional nurses would apply to CNAs, it is also true that paranursing personnel are assigned significantly different tasks to perform, function at a different level on staff hierarchy, and usually come to their jobs with without a college degree.

Method

Participants

CNAs at Park Place Towers (a Geriatric Nursing Facility in Amarillo, Texas) were invited to participate in this study. They were informed that the test would have no bearing on performance evaluations and that neither their supervisor or manager would see the results. The informed consent form also made it clear that they were volunteers who could withdraw from the project at any time. The 135 participants ranged in job experience from 0 to 32 years, averaging 8.3 years experience. Most (78%) considered this their first nursing experience, and the vast majority (94%) were female. As described in the informed consent form (not included in this proposal), all participants were at least 18 years old and under no duress to participate.

Instrument

The Geriatric Employee Screening Tool (GEST) was designed for this study. The test was patterned after such personality profiles as the MMPI-2, CPI, and Neo-PIR and asks a variety of true-and-false oriented questions that help delineate the participant's personality. The 207 items addressed five basic personality dimensions including tenderness, self-realization, dutifulness, responsibility, and knowledge of the elderly. Tenderness stemmed from the literature

review on the importance of empathy and it included items such as “It is better to be tough and dutiful than weak and compassionate” or “Human need is always more important than economic considerations.” The other variables were created after interviewing 14 nursing administrators.

Their rank order of important CNA qualities included:

- (1) taking responsibility for their actions (including questions like, “It bothers me when people say they have little or no interest in politics.”),
- (2) a commitment to their work and a sense of duty (including questions like, “It's important for me to finish any job that is assigned to me.”),
- (3) orderliness (including questions like, “Planning for everything would take the fun out of things.”), and
- (4) a basic knowledge of the elderly (including questions like, “I would be very surprised if one of my elderly clients hit me during the course of my duties”).

All participants took the computerized version of the test. They were instructed to answer the true/false questions with T, Y, or 1 for true or F, N, or 0 for false. They were also instructed that they could skip questions by hitting the space key.

When taking the test, participants were instructed to answer all questions honestly. They were also informed that the test had an index that assessed their candor. Validity questions included such items as, “I have lied in the past,” or “I must admit, I'm not always calm when I argue.” Five tests were discarded because they endorsed 10 or more such items.

Procedure

After all of the participants answered the questions, their supervisors and managers reviewed the list of participants and ranked them on a 5-point Likert-type scale. The rankings were defined in the following manner:

- 5 An exceptional employee. Above the top 15% of your section.
- 4 A strong employee. Above the top 30% of your section.
- 3 An average employee. The employee completes work within expectation.
- 2 A fair employee. Below the bottom 30% of the employees in your section.
- 1 A marginal employee. Below the bottom 15% of your section.

The 4-member panel of supervisors and managers had an average of 12 years of managerial experience and had a high inter-rater reliability (intraclass correlation coefficient of .81) on their participant ratings.

Results

Data was analyzed using a simultaneous, multiple-regression analyses to examine the effects of the five variables against the participant's composite ranking score from their supervisor and manager. The model was highly predictive ($F(5,129)=16.266, p<.001$) and explained 36.3% of the adjusted variance ($\Delta R^2 = .36.3$).

----- Insert Table 1 about here -----

As depicted in Table 1, all of the main effect variables were significantly related to their supervisor's rating score. The variables were still significant after employing a Bonferroni correction ($\alpha = .01$). This means that the following could be said of the employees with the highest rating scores:

- (1) they conveyed a sense of tenderness ($t(201) = -3.853, p = .001$), which extended beyond their work environments to incorporate their method of interacting with family members and strangers;

- (2) they possessed a knowledge of the elderly ($t(201) = -3.917, p = .001$), which means they not only understood the process of aging but held realistic views of what might occur when working with elderly patients;
- (3) they approached many areas of life with a strong sense of independence, assertiveness, and responsibility ($t(201) = -3.539, p = .001$), which extends from their views of politics to how they handle being physically ill;
- (4) a general sense of duty ($t(201) = 3.739, p = .001$), which implies that believe they have lived their life well and are not embarrassed by their lifestyle; and
- (5) a lack of order ($t(201) = -3.371, p = .001$), which means the best employees are more concerned with large-scale duties than minor jobs – they are not perfectionists.

As depicted in Table 2, there is considerable overlap between the variables, and these correlations imply that some of the variables (e.g., orderliness) are more closely related to each other than the supervisor's rating. Orderliness is highly correlated with knowledge of the elderly ($r = .49$) and responsibility ($r = .47$), but it is not directly correlated with the supervisor's rating ($r = .08$). It is also interesting to note that knowledge of the elderly, the best predictor of receiving a high supervisor's rating was highly correlated with tenderness ($r = .46$). This implies that employees who responded tenderly to those around them were more likely to either have or gain an understanding of geriatric nursing.

----- Insert Table 2 about here -----

Discussion

The best nurses and nursing assistants appear to share similar traits. As noted in numerous studies, effective nurses possess and convey empathy to their patients (e.g., Evans et al., 1998; Morgan, 1996; Mulrooney, 1997). Tenderness, the approximation for empathy in this

study, was highly correlated with the scores employees received their supervisors, but it was not the most important variable.

The most successful CNAs are those who possess a knowledge of their clientele. Effective CNAs realize that their patients may strike them, can admit to being frustrated at times with geriatric clients, and understand that medication conditions such as strokes can change affective stability. It is interesting to note the “knowledge of the elderly” variable was correlated with all of the other main effect variables, with the exception of dutifulness. Apparently, responsibility, orderliness, and tenderness help people to better understand the people around them.

Responsibility and dutifulness may have predicted strong employee ratings because they mitigate turnover. The longer an employee is actively engaged in the field, they more likely they are to gain an increased understanding of their clientele. Future studies should explore how responsibility and a sense of duty relate to employee longevity and burnout. If these variables effectively predict turnover as well as efficacy, they may be the most useful personality components.

The only variable that did not meet expectation was orderliness. Pre-study surveys implied that cleanliness and attention to detail would be related to supervisors’ ratings. Though there was a positive correlation between employee ratings and orderliness, the multiple regression analysis revealed a negative correlation. Apparently, the positive features of orderliness are better accounted by a knowledge of the elderly, given the strong correlation between the two variables.

Though these findings may assist human resource personnel in finding effective nursing assistants, the results should be viewed with caution for several reasons. First, the employees

from this study came from a single setting, which might not generalize to other nursing homes or geographical areas. It is possible that the philosophy of Park Place Towers and their perception of effective nursing differ from those of other centers. Second, the sample size for this study was not significantly large enough to warrant an inter-item analysis. A factor analysis could reveal different main-effect variables might also affect the predictability of the model.

Though there are limitations with this study, the effect sizes are large enough to warrant consideration. Human resource personnel are likely to find more qualified staff by screening for tenderness, responsibility, a sense of duty, a lack of perfectionism, and a basic knowledge of the elderly. Additionally, the study test constructed for this study appears to have utility in identifying important employee characteristics.

References

- Baillie, L. (1996). A phenomenological study of the nature of empathy. Journal of Advanced Nursing, 24, 1300-1308.
- Barczak, N. & Spunt, D. (1999). Competency-based education: Maximizing the performance of your unlicensed assistive personnel. Journal of Continuing Education in Nursing, 30, 254-259.
- Bocy, K. (1999). Distressed and stress resistant nurses. Issues in Mental Health Nursing, 20(1): 33-54.
- Breeze, J., & Repper, J. (1998). Struggling for control: the care experiences of "difficult" patients in mental health nursing. Journal of Advanced Nursing, 28(6): 1301-1311.
- Coates, C.J. (1997). The caring efficacy scale: nurses' self-reports of caring in practice settings. Advanced Practice Nursing Quarterly, 3(1): 53-59.
- Coulon, L., Mok, M, Krause, K-L., & Anderson, M.(1996). The pursuit of excellence in nursing care: What does it mean? Journal of Advanced Nursing, 24, 817-826.
- Cullen, C. (2000). Autonomy and the nurse practitioner. Nursing Standard, 14(21):53-56.
- Duquette, A., Kerouac, S., Sandhu, B., Ducharme, F., & Saulnier, P. (1995). Psychosocial determinants of burnout in geriatric nursing. International Journal of Nursing Studies, 32, 443-456.
- Dyer, J. & McGuinness, T. (1996). Resilience: analysis of concept. Psychiatric Nursing, 10, 276-282.
- Eckberg, E. (1998). The future of robotics can be ours. AORN Journal 67(5): 1018-23.
- Evans, B. (1996). Countering problem behavior with help from your ombudsman. In V. R. Jackson (Ed.), The abusive elder: Service considerations, (pp. 57-61). New York: Haworth Press, Inc.

Evans, G., Wilt, D., Alligood, M., & O'Neil, M. (1998). Empathy: A Study of two types. *Issues in Mental Health Nursing*, 19(5): 453-461.

Healy, C. M., & McKay, M. F. (2000). Nursing stress: The effects of coping strategies and job satisfaction in a sample of Australian nurses. *Journal of Advanced Nursing*, 31, 681-688.

Higgins, B. (1996). Caring as therapeutic in nursing education. *Journal of Nursing Education*, 35, 134-136.

Kraimer, M., Seibert, S., Linden, R. (1999). Psychological empowerment as a multidimensional construct: A test of construct validity. *Educational Psychological Measurement*, 59(1): 127-142.

Krainovich-Miller, B., Sedhom, L.N., Bidwell-Cerone, S., Campbell-Heider, N., Malinski, V. M., & Carter, E. (1997). A review of nursing research on the use of unlicensed assistive personnel. *Journal of the New York State Nurses Association*, 28, 8-15.

March, P. L. & McPherson, A. (1996). The important attributes of a nurse from the perspective of qualified and student nurses. *Journal of Advanced Nursing*, 24, 810-816.

Mesirow, K.M. (1998). Improving certified nurse aide retention: A long-term care management challenge. *Journal of Nursing Administration*, 28, 56-61/

Morgan, L.L. (1996). Nurses' experience of compassion. The University of Texas at Austin. Ph.D. Dissertation. (293 p).

Morrison, P. (1991). The caring attitude in nursing practice a repeating grid study of trained nurses' perceptions. *Nurse Education Today*, 11(1): 3-12

Mulrooney, C. P. (1997). The person and relationship-centered caregiving trait and other characteristics of outstanding nursing assistants in long-term care settings. Doctoral dissertation, Boston University.

Muncey, T. (1998). Selection and retention of CNAs. Journal of Advanced Nursing, 27, 406-413.

Reisdorfer, J., Pankonin, L., Larsen, B. (1993). Marking the transition to nursing assistants: Retaining satisfied staff. Recruitment & Retention Report, 6, 1-5.

Schur, D., Noelker, L. S., Looman, W. J., Whitlatch, C. J., Ejaz, F. A. (1998). 4 steps to more committed nursing assistant. Balance, 2, 29-32.

Seedhouse, D. (1999). The basis of care. Lamp. 54(3): 35-38.

Staden, H. (1998). Alertness to the needs of others: a study of the emotional labor of caring. Journal of Advanced Nursing, 27, 147-156.

Watson, J. (1979). Nursing: the Philosophy and Science of Caring. Little, Brown and Co., Boston.

Watson, R., & Lea, A. (1997). The caring dimensions inventory (CDI): content validity, reliability and scaling. Journal of Advanced Nursing, 25 (1): 88-94.

Table 1:
Multiple Regression Analysis for the Number of Personality Facets on Quality of Work

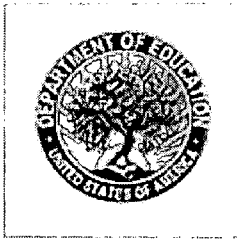
	β	Standard error of β	B	Standard error of B	t	p-level
Tenderness	0.318	0.082	0.422	0.109	3.853	0.001
Orderliness	-0.289	0.086	-0.486	0.144	-3.371	0.001
Dutiful	0.285	0.076	0.619	0.165	3.739	0.001
Knowledge of the elderly	0.355	0.091	0.312	0.080	3.917	0.001
Responsibility	0.294	0.083	0.326	0.092	3.539	0.001

Table 2:

Correlations of the main effect variables

	Tenderne ss	Orderline ss	Dutiful	Knowledge of the Elderly	Responsibil ity	Supervisor's rating
Tenderness	1.00					
Orderliness	.29*	1.00				
Dutifulness	-.23*	-.13	1.00			
Knowledge of the elderly	.46*	.49*	.04	1.00		
Responsibility	.11	.47*	-.26*	.34*	1.00	
Supervisor's rating	.37*	.08	.19*	.47*	.24*	1.00

Note: * = $p < .05$



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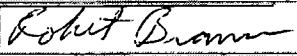
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