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Evidence-Based Nursing Process (EBNP) Consumer Culture Attribute Identity: A Message-Based Persuasion Strategy Study among Nurse Executives in the United States of America

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Background: Evidence Bases Nursing Practice (EBNP) is fast becoming the model for care giving. Little is know about nurse executive's knowledge about EBNP. Method: In an effort to identify Chief Nurse Executives understanding and use of EBNP, a nested study methodology was included to determine what method of inquiry would be best elicit their response. This survey was done to determine if nurse executives were more apt to respond to a questionnaire that appealed to their professional status and identity or one that announced the topic of the survey. **Results:** The total postal *mailed surveys* return response rate was 134 or, a 14.6% return. The proportion of surveys that were returned when the first words the subjects saw upon opening the envelope was "EBNP Survey" was 74 out of 608 or, 12.2%. Of the 309 mailed surveys where the first words the subjects saw upon opening the envelope, with the envelope opening specifically to "Nurse Executives" the return response was 60 or, 19.4%. **Conclusion:** This indicates a higher rate of return proportionally by subjects who saw the words "Nurse Executives," and responded favorably with return of the survey. A 20% response rate is considered acceptable. This result occurred even when nearly twice the number packets opened to the words "Evidence-Based Nursing (EBNP) Survey." Persuasion research remains focused on healthcare consumers choices. Nurse executives comprise such one classification. The link between cognition, motivation and behavior may identify preferred practice of Evidence Based Nursing Practice.

Key Words: Evidence Based Nursing Executives Response

INTRODUCTION

The work presented here is part of a larger study on Evidence–Based Nursing Process (EBNP). In an effort to identify Chief Nurse Executives understanding and use of EBNP, a nested study methodology was included to determine what method of inquiry would be best elicit their response. This survey was done to determine if nurse executives were more apt to respond to a questionnaire that appealed to their professional status and identity or one that announced the topic of the survey.

Marketing professionals have long identified that social classes, defined as communities of individuals bounded by common social status, implies inherent empowerment intrinsic to class that affects self-worth evaluations[1]. Self worth evaluations, in turn, are comprised of specific attribution dimensions[2]. These attribution dimensions incorporate qualities such as responsibility, stability, controllability and autonomy and locus of causality[2]. Self worth status is also related to economic factors formulated by visible lifestyle markers and formal positions contributing to prestige[1]. Identity-based judgments are judgments or decisions made while bringing to mind the perception of a specific identity[3]. Social categories, perceived as self-relevant identity markers help to formulate a person's self concept or self-schemata[3]. Feelings of empowerment are integral toward developing a healthy identity-based judgment[1]. These identity-based self evaluations, coupled with reactions from others, drive public perceptions of occupational prestige, social influence that can facilitate persuasion and the acceptance of persuasive marketing[1,4].

Ego-relevant behaviors

People tend to behave in manners consistent with their core self-concept/self schemata[1]. This article describes pilot research related to social acceptance of empowerment inherent within the position of nurse executive, and demonstrates that marketing appeals dedicated toward verification of this empowered self identity/self schemata presented within a message-based persuasion strategy drives subsequent behavior choices (namely, acceptance or rejection of a specific marketing appeal)[1].

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Background

Ego-relevant Behaviors and Attribute Identity

Market analysis concedes that consumers often face emotion-laden decisions involving goals considered to be of personal importance[5]. Research also suggests that attribute emotionality can also influence choice of one attribute over another[5]. Research has not included nurse executives as subjects in many studies of attribute identity. Indeed, "simple cognitive load can cause people to fail to appreciate the implications of ego-relevant behaviors by diverting attention away from self-goals"[5].

Attribute Identity Studies

A series of four experiments, Drolet and Luce, explore how emotion-based trade-off avoidance is influenced by cognitive load[5]. Findings suggest attentional failure can disrupt goal monitoring, one of the self regulating processes[5,6]. A discussion of their second experiment implies that the attribute effect to cognitive load involves a higher level process of attribute consideration in view of one's self goals ($F(1,83) = 3.43$, $p < .07$)[5].

The third experiment in this group also lends credence to the importance of attribute identity. The two hypotheses tested in this study attempted to determine whether cognitive load has a direct effect on consumer mood or anxiety levels (which might, in turn, affect decision making), and whether cognitive load disrupts imagery-related processes[5]. Imagery-related processes are mental images formulated around selected quality attributes. Consumers laboring under stressful cognitive loads are less likely to construct mental images involving quality attributes[5] . However this may be the effect of differences in imaginability of the attribute rather than a difference in the emotionality of the attribute[5]. Findings from the third experiment suggest that, in the absence of cognitive load, the attribute emotionality variable has a main effect on ultimate choice ($F(1, 135) = 11.62$, $p < .001$) that fully mediates the attribute identity effect ($F(1, 135) = 1.16$, $p = .28$)[5]. The hypothesis predicted that emotion measures mediate attribute identity effects, but this effect is moderated in the presence of cognitive load[5].

Trade-off Attribute Values

Past decisions may subtly influence current or future decisions if the trade-off values between attributes in previous choices influence subsequent choice[6]. This is called the Background Contrast Effect and very little research has focused on how the Background Contrast effect influences choice[13]. Many studies have focused on a current choice set (referred to as a local contrast effect) that demonstrates the presence or memory of a positive context can make a product seem more attractive, and conversely, the presence or memory of a negative context can make a product seem less attractive[6].

Identity-based Judgments

Identity-based judgments are judgments or decisions made while bringing to mind the perception of a specific identity[3]. Social categories, perceived as self- relevant serve as identities that help to make up a person's self concept[3]. Identity salience is a temporary psychological state during which the consumer's self concept identity is activated bringing to mind attitudes and behaviors relevant to the social identity[7,9]. In addition to identity salience, strength of identification within the self-concept also affects judgment[3]. Previous research implies that the "self" is composed of many hierarchically ordered self-identities[3,10,11]. Another term for this phenomenon is "self schemata"[3].

Identity-based judgment has three important characteristics. First, it reflects relatively one-sided, top-down thinking that is driven by a perspective linked to a single identity··· Second, judgment that is based on a salient and strong identity is embedded in an elaborate self-relevant schema that may be difficult to undo because of its entrenchment in the self···Third, identity-based judgments that are shared by others (i.e. social referents who share the identity) are perceived as having greater subjective validity and therefore are held more confidently[3,4].

Persuasion research

It has been demonstrated that social influence can facilitate persuasion[4]. Identity salience may represent an internal source of social influence. Prior research on identity and social influence have yielded mixed results that motivations tend to reflect a psychological state of involvement interrelating attitude with self-concept[12]. Two researchers[12] proposed three possible explanations for this phenomenon. The first is *outcome-relevant involvement* that ties an activated attitude (or propensity toward) a particular action with a need to maintain a desirable outcome. The second is *value-relevant involvement* that links an activated attitude with a person's important values. The third is *impression-relevant involvement* that combines an activated attitude with the person's public self[12,13].

Managerial decision making

Identity is important in managerial judgment[4]. Managers who consider an issue from the perspective of a strong salient identity may find it hard to respond to alternative identity clues[4]. Therefore the perseverance of identity-

based self schemata may have consequences for managers as well as other consumers[4]. These social identities, or mental representations of how a person views himself/herself can become a basic part of a person's self schemata[9].

Purpose

The issue of trade-off attributes and identity attributes of social influence can be accentuated or attenuated by certain contextual influences. Although key questions in this area of marketing remain unresolved it is the purpose of this paper to identify an emotion-based attribute core to the perception of ego-laden self-concept among nurse executives[2].

METHODS

Design

Acquiring information about EBNP comprehension characteristics within the identified sample necessitated an exploratory descriptive nested design. The literature review provided little insight into nurse executives' beliefs, understanding, or acceptance of the \construct of EBNP. This finding necessitate a quantitative and qualitative design to better present a more comprehensive picture on nurse executives' understanding of EBNP. With permission a minor modification was made to "The EBP Belief Scale"©and "The EBP Implementation Scale"©by Melnyk & Fineout-Overholt[13], which included changing the wording of "my" in the original scale to, "my nurses." The qualitative part of this study consisted of the addition of two open-ended questions because previous researchers'[13] study identified the lack of evidence from qualitative studies as one factor leading to misconceptions about EBNP among nurses[13].

This survey was done to determine if nurse executives were more apt to respond to a questionnaire that appealed to their professional status and identity or one that announced the topic of the survey.

Sample

Stratified randomized lists of key upper-management nurse executives (including, but not limited to, Vice Presidents of Nursing, Directors of Nursing, and assistants, deans, nursing unit directors and supervisors) were purchased from the American Organization of Nurse Executives (AONE)[14] and the American Hospital Association (AHA) and was utilized for study subjects. By their strategic plan objectives, AONE encourages research and the dissemination of new knowledge to nurse executives (AONE)[15]. Inclusion criteria consist of active employment in a key upper management nurse executive position within a healthcare organization. An implicit assumption was that subjects must be able to read and write in English. Nurse executives were sought from each state and the District of Columbia for a total mailing of approximately 1000. Based on the number of survey items to subject, the return rate expectation were 102 completed questionnaires. A cover letter was sent to the randomized sample on University of Missouri letterhead explaining the research, questionnaires, and a demographic information sheet, a self-addressed, and stamped envelope.

Research Question

The research question for this phase of the study explored the nested marketing section of the survey. This question was: are nurse executives more likely to respond to a mailed questionnaire that appeals to their professional status and identity or one that announced the topic of the survey? Exempt status was received from the University of Missouri–St. Louis Institutional Review Board (IRB).

Theoretical Definitions

Evidence-based nursing process (*EBNP*). *EBNP* integrates the best research evidence with clinical expertise, patient values, cultural norms and mores, spiritual considerations, and patient preferences in determining the best course of care for the patient[14]. *Message-based Persuasion Strategies* (*MBPS*) tools of attitudinal and social influence that aim to change behavior by changing the influence of primary motivations[16,17,18,19].

Operational Definitions

Evidence-based nursing process (*EBNP*)- the theoretical definition of evidence-based nursing process was operationalized as: selected partial scores on the EBP Beliefs Scale©, The EBP Implementation Scale© , and core concepts resulting from the cleaning and coding of the qualitative, open-ended questions in the larger study. In the section of the study labeled "Marketing" the EBNP definition was operationalized as frequency analysis scores.

Message-based Persuasion Strategies (*MBPS*) the theoretical definition of message-based persuasion strategies was operationalized as scores in a frequency distribution between two types of survey packaging.

Study Sites

A stratified randomized list of nurse executives actively employed in key upper management positions within healthcare facilities in the 50 states of the United States of America and the District of Columbia was purchased from

the American Organization of Nurse Executives (AONE) and the American hospital Association (AHA). Based on informal estimates, power requirements for statistical significance per number of questions is usually computed at a ratio of 3:1, meaning a response expectation of three subjects per question[20]. A randomized list of 498 subjects was purchased from AONE and a complete list of nurse executives from AHA member hospitals numbering 3415 and was randomized manually with an initial mailing of 250. This over-sampling was done to strengthen the propensity to achieve the expected return rate of 120 surveys. Although questionnaires were mailed with self-addressed-stamped return envelopes, study subjects were allowed the convenience of responding by telephone, email or fax. The responses by telephone, email or fax are not included in this data used for the marketing survey, presented in this report.

Procedure

A marketing survey nested within the original survey was performed to identify which type of packet would more readily appeal to nurse executives and thereby be more apt to be opened and read. Approximately 30% of the questionnaires (N=309) were inserted into the outer envelopes of the mailer so that the middle portion of the cover page was exposed. Upon opening the packet, this middle section read, "For Nurse Executives." Packets containing the enclosures folded so that the "For Nurse Executives" statement, had return address envelopes with the principal investigator's name written in cursive and highlighted, while all the other packets had the principal investigator's name printed on the bottom of the return envelope without identity highlighted. Nearly double the subjects (n=608) of the other packets had the questionnaire inserted into the outer envelope so that the first thing that the subjects saw when they opened the envelope was "Evidence-Based Nursing (EBNP) Survey." Data from surveys returned only by mail, verses email or fax or telephone, are reported here.

Subjects' identities were protected by eliminating any name or other coding identifier; this also omitted any opportunity to send reminder post-cards or follow-up. Return of the survey provided implied consent to use the data.

RESULTS

Data Analysis

Of the 961 surveys sent, 44 were returned "addressee unknown" for a total of 917 valid questionnaires sent successfully. A total of 154 responses were returned via first class mail, fax, email, or telephone. Of this number, 134 were mailed back to the researchers and 20 were returned via other media routes. Frequency distribution was the measure of central tendency used for the marketing part of the study. A profile analysis of the questions was also conducted along with other measures of central tendency and dispersion. This articles reports only on the data of the surveys received by first class mail.

The total postal *mailed surveys* return response rate was 134 or, a 14.6% return. The total return overall by all media routes was 154 or, 16.8% (5 by email and 15 by telephone). The proportion of surveys that were returned when the first words the subjects saw upon opening the envelope was "EBNP Survey" was 74 out of 608 or, 12.2%. Of the 309 mailed surveys where the first words the subjects saw upon opening the envelope, with the envelope opening specifically to "Nurse Executives" the return response was 60 or, 19.4%. This indicates a higher rate of return proportionally by subjects who saw the words "Nurse Executives," and responded favorably with return of the survey. A 20% response rate is considered acceptable[20]. This result occurred even when nearly twice the number packets had the questionnaire inserted into the outer envelope so that the first thing that the subjects saw when they opened the envelope was "Evidence-Based Nursing (EBNP) Survey."

Results indicate that nurse executives responded more favorably to mailed surveys when their self concept/self schemata was verified via packaging that allowed them ego-identification upon opening the mailer.

Although it is beyond the scope of this study to examine the possible psychological motives concerning these results it may be possible to conclude that identification with one's position via message based persuasion strategies appealing to position title may be a valuable marketing strategy for future nurse researchers to employ in utilizing mailed questionnaires.

DISCUSSION

Researchers within the marketing arena recognize that psychological life space is multidimensional with each individual a composite of multiple life domains[21]. Each life domain is composed of respective value-laden beliefs[21]. Several quality-of-life studies have shown that identification with these value-laden beliefs can contribute to life satisfaction within specific domains[22,23,24].

Occupational prestige in nursing correlates with embedded power intrinsic in selected professional position categories. This discussion seeks to combine study results

with the identity-triggering components of message-based persuasion strategies in nursing.

Cognitive techniques such as those found in message-based persuasion strategies (MBPS) may prove effective as marketing tools aimed at influencing nurse executives. The MBPS techniques of particular interest in this study are: Positive issue framing, imagery, valence expectancy framework, and value-laden beliefs[2,17,18,21].

Positive issue framing

Issue framing is a MBPS technique that attempts to focus attributes upon an issue once it is identified[18,25]. Positive issue framing focuses positive attributes upon the identified issue[18].

Imagery

Imagery techniques are approaches to changing schemas and can be applied to changing perceptions of self-schemata[17]. As a cognitive therapy the technique involves the suggestion of a scene developed in vivid detail. This internal self dialogue enables the person participating in the imagery to associate feelings and emotions with the particular image that has been constructed[17]. Utilized within the context of a marketing technique, imagery may evoke similar feelings and emotions if words, descriptive of qualities that stimulate satisfaction and approval, generate these same fleeting qualities of satisfaction and approval within the subject- a form of suggestion at the subliminal level.

Value-laden beliefs

Beliefs reside in cognition, affect and behavior[26]. Beliefs, values, opinions, interests and attitudes are personality characteristics that are behavior motivators[27]. Beliefs, like opinions, are judgments accepting the inclusion of certain intrinsic properties. Value-laden beliefs are facilitating in that they cognitively define a person's self-schemata in terms of motivating qualities[26]. A belief system validated by the larger social structure may increase future motivation to accept those values when found imbedded within a different context.

Valence-expectancy framework

Using valence expectancy framework(expectancy-value formations), a person uses two factors in evaluating an object or a decision concerning an object: valence and expectancy[2,28]. *Valence* refers to the positive or negative expectations about the possibility of an event occurring[2]. *Expectancy* is the estimate of the likelihood of the event occurring[2]. These belief generated thoughts are value-laden[18,26]. Vroom, in 1964[28], used the valence expectancy framework to identify attribution factors that affect satisfaction[2,28]. Theoretical mapping of attribution dimensions onto the valence or expectancy component of the valence expectancy framework has had limited and inconsistent findings in the past[2,3]. Other researchers[2] suggest future research opportunities lie in examining the applications of the valence-expectancy framework in areas other than post-purchase satisfaction.

The valence-expectancy framework was employed in this study by identifying two methods of packaging; one appealing to the implicit attribute identity self schemata of a nurse executive; and the other to the non-attribute laden topic of Evidence-Based Nursing. Mailers that revealed the value-laden title," Nurse Executive", were returned more frequently (19.4%) than mailers that opened to the topic of evidence-based nursing (12.2%). These data provide beginning support of the theoretical constructs defined in the framework. Study benefits include the professional satisfaction of contributing to a broader nursing knowledge base of EBNP among subjects who have not been studied in any great number to date with a benefit to risk ratio anticipated to be positive and strong. A more significant expected benefit of this part of the study is the preliminary findings that nurse executives tend to accept and internalize mail that appeals to their status as professionals rather than to the content of the survey. A limitation can be query of only the nurse executives in the United States, albeit some of these nurses could be of other cultural training. Future research can focus on nurses of other cultural practices and education.

CONCLUSION

Persuasion research remains focused on healthcare consumers and guardians of healthcare consumer choices. Nurse executives are responsible consumers who comprise one classification of guardians of healthcare consumer choice. As such, it is incumbent upon researchers to study attribute identities held by this important group of healthcare consumers. Thus, the link among cognition, motivation and behavior[29] may provide additional information toward identifying nurse executives' mindset toward future preferred practice choices, which includes Evidence Based Nursing Practice. .

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