# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Editorial Board</td>
<td>2</td>
</tr>
<tr>
<td>Information for Authors</td>
<td>3</td>
</tr>
<tr>
<td>Call for Manuscripts</td>
<td>37</td>
</tr>
<tr>
<td><strong>EDITORIAL</strong></td>
<td></td>
</tr>
<tr>
<td><em>Lest we forget: The Tuskegee Experiment</em></td>
<td>5</td>
</tr>
<tr>
<td>Charles A. Walker, PhD, RN</td>
<td></td>
</tr>
<tr>
<td><strong>ARTICLES</strong></td>
<td></td>
</tr>
<tr>
<td><em>Development and Description of the Incivility in Nursing Education (INE) Survey</em></td>
<td>7</td>
</tr>
<tr>
<td>Cynthia M. Clark, PhD, RN; Judy Farnsworth, PhD, RN, and R. Eric Landrum, PhD</td>
<td></td>
</tr>
<tr>
<td><em>Conspiracy Theories in African American Culture: A Concept Analysis</em></td>
<td>16</td>
</tr>
<tr>
<td>Allyssa L. Harris, RN, PhD, WHNP-BC</td>
<td></td>
</tr>
<tr>
<td><em>Psychosocial Model: Racism as a Predictor of Adherence and Compliance to Treatment and Health Outcomes among African Americans</em></td>
<td>20</td>
</tr>
<tr>
<td>Bernice Roberts Kennedy, PhD, APRN, BC</td>
<td></td>
</tr>
<tr>
<td><em>A Grounded Theory of International Student Well-being</em></td>
<td>27</td>
</tr>
<tr>
<td>Debra A. McLachlan, PhD, RN and Jessica Justice, BSN Student</td>
<td></td>
</tr>
<tr>
<td><em>Usefulness of the Health Belief Model in Predicting Cardiac Rehabilitation Initiation</em></td>
<td>33</td>
</tr>
<tr>
<td>Linda C. Shanks, PhD, DNP, RN</td>
<td></td>
</tr>
</tbody>
</table>
Journal of

Theory Construction & Testing

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3. Indicate the placement of all tables, figures, and exhibits in text.
4. Use the reference style of the *Publication Manual of the American Psychological Association* (APA), 5th edition with the following exception: **Italicize titles of books, journals instead of underlining.**
5. Verify that references cited in the text match perfectly with those cited in the reference list.
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- Copyright release signed by all authors
- Title page with: article title; full name of each author with credentials, titles and institutional affiliation; all funding sources
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The Tuskegee Legacy

In 1997, President Bill Clinton issued a formal apology for the egregious wrongs committed by the U.S. government in the Tuskegee Study. But the Tuskegee Study’s harmful legacy lives on in the African American community. Because the experiment was perpetuated exclusively on African Americans, it has tainted their relationship with members of the health professions. The Study is cited as one reason why few African Americans participate in...
clinical research, why they frequently avoid preventative care, and why rumors of government-controlled genocide (e.g., AIDS epidemic, birth control) persist to the present day (Katz et al, 2006).

**Center for bioethics established.** With his official renunciation of the Tuskegee Syphilis Study, President Clinton provided seed funding to establish the National Center for Bioethics in Research and Health Care at Tuskegee University. As outlined in the Final Report of the Syphilis Study Legacy Committee (1996), a group of dedicated individuals who pursued a presidential apology and the Center’s establishment, the Center aims to transform the negative Tuskegee legacy into a positive one. The positive legacy celebrates achievements of Tuskegee University, which were obscured by the Study’s notoriety, rebuilds African Americans’ trust in the health care and scientific communities, and encourages research with diverse populations.

**Institutional review required.** Years before the Center for Bioethics was established, the National Research Act of 1974 was passed after public revelation of the Tuskegee Study (Heller, 1972). This act catalyzed formation of Institutional Review Boards (IRBs) that screen and regulate research studies involving human participants in institutions or organizations receiving federal funds. IRBs are poised to ensure that research protocols meet stringent criteria for scientific merit and ethical responsibility.

**This Issue of JTCT**

JTCT is committed to publishing research that is scientifically sound and ethically responsible. In this issue of JTCT, contributing authors of two complementary articles cite the Tuskegee Study as pivotal to prevalent distrust of formal health care among African Americans. Harris analyzes the concept of conspiracy theory in African American culture, and Kennedy proposes a psychosocial model of racism to predict health outcomes. The remaining authors address other vulnerable and high-risk populations. Clark, Farnsworth and Landrum report the measurement of incivility in nursing education; McLachlan and Justice examine the experiences of international students, and Shanks explores utility of the Health Belief Model with patients initiating cardiac rehabilitation.

**REFERENCES**


Abstract: Incivility in nursing education is a challenging problem and difficult to measure. This paper describes both the development and description of the Incivility in Nursing Education (INE) survey. The INE includes eight demographic items, six quantitative items, and four open-ended questions. It measures nursing students' and faculty's perceptions of and experience with academic incivility. The INE was initially tested in a 2004 pilot study using a convenience sample of 356 nursing students and faculty and re-tested in a 2006 study with another convenience sample of 504 nursing faculty and students. Revisions were made to the INE based on findings from these two studies and from findings derived from a 2006 qualitative study. The INE is easily administered to nursing students and faculty and measures both groups' perceptions of uncivil student and faculty behaviors and their perceived frequency. The INE also provides suggestions for prevention and intervention. Preliminary testing of the INE survey supports its continued use in nursing education and research.

Key words: incivility, faculty-student relationships, instrument development, nursing education

Development and Description of the Incivility in Nursing Education (INE) Survey

Preventing and managing uncivil, disruptive, and potentially violent behavior is a challenging problem for nursing administrators, faculty, and students. Academic incivility seriously disrupts the faculty-student relationship and diminishes the teaching-learning environment. Examination of this topic is timely because of the rise in campus violence evidenced by the recent school shootings at Northern Illinois University in 2008, the shootings at the University of Arizona in 2002, and by the deadliest school shooting in American history at Virginia Tech in 2007.

Violence and Incivility

Fortunately, events involving fatal school violence are rare. Estimates reveal the total number of murders on American college campuses "fluctuated between 9 and 24 per year between 1997 and 2004" (Pavela, 2007, p.1). Some researchers suggest that there may be a link between violence and acts of incivility. Shirey (2007) noted that unresolved and irrational anger might manifest in destructive ways. Uncivil behavior in higher education threatens the academic environment, and being aware of the problems associated with these behaviors may prevent acts of violence from occurring (Ehrmann, 2005). When incivility is minimized, acts of violence decrease (Forni, 2008). Therefore, it is essential to measure incivility so strategies for prevention and intervention may be established and implemented to avert potential acts of violence.

Incivility is an authentic respect for others during encounters of disagreement, disparity, or controversy—and involves time, presence, genuine engagement, and an intention to seek common ground (Clark & Carnosso, 2008). Conversely, academic incivility is defined as rude, discourteous speech or behavior that violates the norms of mutual respect (Feldman, 2001). Incivility in nursing education is defined as rude or disruptive behaviors which often result in psychological or physiological distress for the people involved and if left unaddressed, may progress into threatening situations. This definition emerges from several studies conducted by Clark (2006, 2008a, 2008b, 2008c, 2008d; Clark & Springer 2007a, 2007b) and is consistent with the definitions of other scholars in the field, in particular Luparell (2003). Few empirical studies have been conducted on the topic of incivility in nursing education; two of the original studies focused on faculty perceptions of incivility in nursing education (Lashley & deMeneses, 2001; Luparell, 2003) and a third study focused on students' perceptions (Thomas, 2003). These pioneering studies brought the problem of incivility in nursing education to awareness and became catalysts for further research. A quantitative instrument was needed to measure the presence of incivility with large samples in nursing education and from both student and faculty perspectives. Clark designed the "Incivility in Nursing Education" (INE) survey in 2004 to measure this phenomenon. This article describes the development and the psychometric testing of the INE survey and includes findings from studies that have been conducted using this instrument.

Description of the INE Survey

The Incivility in Nursing Education (INE) survey is used to describe nursing faculty and student perceptions of uncivil, disruptive, and threatening behaviors, and the perceived frequency of these behaviors. The INE also elicits suggestions for prevention and intervention. The INE is divided into three sections. Section I of the survey collects demographic data, which establishes the context of uncivil behavior. Section II lists student and faculty behaviors occurring in the academic environment. The behaviors in Section II are divided into two categories. The first category lists behaviors that may be considered disruptive or uncivil. For each behavior, the respondent is asked to indicate whether he or she regards the behavior as disruptive or uncivil and how often he or she has experienced the behavior in the past 12 months. The second category lists behaviors that are known to be threatening. Respondents are asked to indicate if they or someone they know have experienced the threatening behavior within the past 12 months. Section II also includes two items to measure a) the...
extent to which students and faculty perceive incivility to be a problem and b) the extent to which respondents’ perceive nursing faculty or nursing students as more likely to engage in uncivil behavior. Section III includes four open-ended questions asking respondents to describe ways students and faculty may contribute to incivility in nursing education, how the incivility should be addressed, and whether the respondent has any additional comments.

**Survey Development**

Clark developed the INE survey in 2004 after conducting faculty and student interviews, drawing from professional experience, and conducting a review of the literature. The Cumulative Index for Nursing and Allied Health (CINAHL), PubMed, Dissertation Abstracts International, and Education Resources Information Center (ERIC) databases revealed no known instruments designed to measure incivility in nursing education. The foundation for the survey items in Section II of the INE were adapted from the “Defining Classroom Incivility (DCI)” survey designed by the Center for Survey Research at the University of Indiana (2000) and the “Student Classroom Incivility Measure (SCIM)” and the Student Classroom Incivility Measure-Faculty (SCIM-F) developed by Hanson (2000). Both instruments were designed to measure incivility in general higher education. Written permission was obtained from the Center for Survey Research at University of Indiana to use the DCI and verbal permission was received to use items from the SCIM and the SCIM-F (Personal communication, Michelle Fryer Hanson, April 2004).

The DCI is based on a comprehensive survey conducted by researchers at the University of Indiana (2000). Nearly 1,500 faculty members responded to the 7-page survey. The survey measured the extent and types of incivility that faculty and graduate instructors encountered, their responses, and their perceptions about who engages in incivility. The survey items were drawn from a review of the literature on academic incivility. Thirty uncivil student behaviors were included in the survey. Of these behaviors, the most frequently reported uncivil behaviors were students arriving late for class, cutting class, and coming to class unprepared. Behaviors that occur less frequently included verbal and physical threats, inappropriate e-mails, and taunting other students.

Hanson (2000) explored academic incivility in a variety of disciplines in large lecture courses at a university in the upper Midwest. The researcher used quantitative and qualitative measures to examine faculty and student perceptions of classroom incivility. Instruments used in the study to measure classroom incivility included the Student Classroom Incivility Measure-Faculty (SCIM-F) derived from an instrument designed by Plax, Kearney and Tucker in 1986 (as cited in Hanson, 2000). Hanson’s study included four phases. The first phase of the study included classroom observation. The researcher observed five faculty members during a 50-min class.

In Phase II and III of Hanson’s (2000) study, students and faculty in large general education courses were asked to complete the SCIM and the SCIM-F. Two hundred and thirty-seven students completed the Student Classroom Incivility Measure (SCIM) which included three sections (Parts A, B, and C). In Part A, students used a 14-item, five-point Likert-type scale to rate the frequency with which they had previously engaged in uncivil behavior in the classroom. Cronbach’s alpha for Part A was .86. In Parts B and C of the SCIM, students used a four-point Likert-type scale to rate the extent to which they perceived disruptive student and faculty incivility occurring in the classroom. Cronbach’s alpha reliability for each scale was .84. Twenty-six faculty members who had taught a large course in the past year responded to the SCIM-F. The items included on the SCIM-F were similar to the SCIM, but worded differently. Alpha reliability for the SCIM-F was .67. Phase IV included three faculty interviews after classroom observations were completed.

Hanson (2000) triangulated the classroom observations with interviews to examine classroom incivility. The results indicated that faculty and students hold different perspectives of classroom incivility. A t test was used to determine that faculty perceived non-class relevant discussion, non-class relevant laughter, and non-class relevant behaviors to be significantly more disruptive than students perceived them to be (p < .05). Students found fast-paced, non-involving lectures to be significantly more disruptive than faculty believed them to be (p < .05). Students reported they infrequently engaged in uncivil behaviors. The behaviors they reported included irrelevant talk during class, being inattentive, coming to class late, and failing to attend class.

Foundation items describing uncivil, disruptive, and threatening behaviors in the INE were taken from the University of Indiana (2000) and Hanson’s (2000) studies. Once the items were developed, a panel of experts reviewed the items to further establish content validity. The panel was composed of six nursing and non-nursing university professors, ten nursing students, and one statistician. Reviewers found the items highly reflective of academic incivility. Based on the review several items were revised and improvements were made to the format of the INE. In 2006, Clark conducted a qualitative phenomenological study to further investigate incivility in nursing education (Clark 2006; 2008a, 2008b). Findings from this study provided additional content validity and were used to revise the INE.

**Pilot Testing the INE**

The INE was pilot tested in 2004 using a convenience sample of 356 nursing faculty and nursing students in a large nursing program in the Northwest U.S. Findings from the pilot study were consistent with the incivility literature and with results from similar studies designed to measure non-nursing faculty and student incivility. In the quantitative portion of the 2004 pilot study, the majority (61.5%) of both faculty and students perceived uncivil behavior as a moderate problem in nursing education. Student behaviors most frequently reported as uncivil by faculty included making disapproving groans, making sarcastic remarks or gestures, not paying attention in class, dominating class discussions, using cell phones during class, and cheating on examinations. Examples of faculty behaviors considered uncivil by students included canceling class without warning, being unprepared for class, not allowing open discussion, being uninterested or cold, belittling or taunting students, delivering fast-paced lectures, and not being available outside of class.

The authors compared whether nursing students and faculty perceive the same behaviors as uncivil using a row mean-score test, a variation of a Cochran-Mantel-Haenszel test from epidemiology. The findings indicated that some student and faculty behaviors were viewed differently between faculty and students. In all cases, faculty was less likely than students to consider student behaviors uncivil. Behaviors about which faculty members’ and students’ perceptions differed included students acting apathetic or bored (p < 0.01), making disapproving groans (p < 0.01), sleeping in class (p < 0.01), arriving late to class (p < 0.05), and leaving class early (p < 0.05); faculty canceling class without warning (p < 0.05) and faculty delivering fast-paced, non-involving lectures (p < 0.05).

Findings from the qualitative portion of the 2004 pilot study revealed that nursing students and faculty are concerned about what they perceive as a rise in uncivil behavior in nursing education. An interpretive narrative analysis yielded four categories of incivility: a) in-class disruption by students, b) out-of-class disruption by students, c) uncivil faculty behaviors, and d) possible causes of incivility in nursing education. For a detailed description of the pilot study results see Clark and Springer (2007a, 2007b).

The INE was further tested in a study conducted in 2006 using a convenience sample of 504 nursing faculty and student attendees from two national nursing conferences. Cronbach’s alpha inter-item coefficients were calculated for the 2006 data set.
to evaluate the extent to which each item related to the rest of the items on the survey. Table 1 presents the coefficients for the student behaviors on the survey (level of incivility and frequency of occurrence) and the faculty behaviors on the survey (level of incivility and frequency of occurrence). Student behavior inter-item coefficients range from .808 to .889, indicating good inter-item reliability. Faculty behavior inter-item coefficients range from .918 to .955, indicating very good inter-item reliability. Minor revisions were made to the INE following this study.

**Administrating the INE**

The INE survey is self-administered using a fill-in-the-bubble Scantron format for the quantitative items included in Sections I and II. Section III is a fill-in-the-blank format designed to elicit respondents’ opinions about incivility in nursing education. Participation is voluntary and there are no imposed time limits. The survey administrator is not present for the survey administration. Surveys are numbered for tracking purposes, but anonymity of respondents is maintained. All responses are collected anonymously and reported as aggregate data.

**Analysis of the INE**

**Section I of the INE.** Demographics collected in the first section of the INE describe student or faculty status, gender, age, ethnicity/racial background, residence, years taught by faculty at the college/university level, level of the program faculty is teaching, and students’ level in the nursing program.

**Section II of the INE.** The second section of the survey is divided into two subsections: behaviors that are potentially uncivil and behaviors that are known to be threatening. For both subsections, student and faculty are asked to respond. Section II (student and faculty behaviors) is analyzed using statistical analytical software. Data are presented according to the respondents’ perception as to whether the behavior is considered to be uncivil. The frequencies of which nursing faculty and students experienced the uncivil behaviors within the past 12 months are reported as ‘yes’ or ‘no.’ Frequencies for the 13 faculty and student behaviors considered to be threatening are also calculated. The last two quantitative items include a) the extent to which students and faculty perceive incivility to be a problem, and the extent to which respondents’ thought nursing faculty or nursing students were likely to engage in uncivil behavior. Responses for these items are analyzed and reported as descriptive data. Whether the most frequently reported uncivil behaviors are reported to be the most uncivil collectively or individually by faculty and students can be determined.

**Section III of the INE.** The last section of the survey consists of four open-ended questions designed to gather respondents’ opinions about faculty and student contributions to incivility and suggestions for remedies to prevent and intervene with uncivil behavior. Respondents’ comments are transcribed verbatim and collected in an Excel data file. An interpretive qualitative method is used to analyze the narrative data; significant statements are extracted from the data and formulated into themes until saturation is reached (Creswell, 2003). Once theme reduction is completed, areas of theme agreement and disagreement are discussed and all verbatim comments are reviewed until all researchers are confident the analysis is a valid representation of the respondents’ comments. Validity of the findings is determined using external debriefing and peer review. These processes are used to evaluate the consistency of theme development and to ask probing questions so that an accurate assessment of the findings resonates with people other than the researcher (Creswell, 2003). The responses may be reported as aggregate data collectively, or reported separately according to student and faculty responses. Analyzing the responses separately allows for comparisons to be made between faculty and student perceptions of incivility.

**Psychometric Qualities**

**Descriptive Statistics**

Data from the 2006 study which included 504 nursing faculty and students attendees at two national nursing conferences were used to provide a comprehensive view of the performance of the INE (Clark, 2008c, 2008d). Tables 2-5 present the 2006 descriptive data. Table 2 provides means and standard deviations of potentially disruptive student behaviors. Table 3 provides the frequency (reported as “yes” answers) of uncivil student behaviors. Table 4 provides the means and standard deviations of potentially disruptive faculty behaviors, and Table 5 provides the frequency of uncivil faculty behaviors.

**Student demographics.** There were 306 student participants, with an average age of 31.8 (SD = 9.15), ranging from 19 to 58. Of those reporting gender, 13.4% were male and 86.6% were female. Just over 85% of the participants were White/Caucasian. Regarding enrollment, 5.0% of participants were LPN students, 48.0% were seeking an associate’s degree, 44.5% were seeking a bachelor’s degree, and 2.5% were master’s degree students.

**Faculty demographics.** There were 194 faculty participants, with an average age of 50.9 (SD = 8.08), ranging from 21 to 72. Of those reporting gender, 2.1% were male and 97.9% were female. Regarding ethnicity, 88.5% of the faculty respondents were White/Caucasian. The average number of years of teaching experience was 11.1 (SD = 8.5). Twenty-eight faculty members taught in a practical nursing program, 89 in an associates program, 77 in a bachelor’s program, 15 in a master’s program, and 23 in a doctoral program (the total exceeds the number of participants because some faculty taught in more than one type of nursing program).
<table>
<thead>
<tr>
<th>Student Behaviors</th>
<th>Student Perceptions</th>
<th>Faculty Perceptions</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Do you consider this behavior disruptive?¹</td>
<td>How often have you experienced or seen this in the past 12 months?²</td>
</tr>
<tr>
<td>Acting bored or apathetic</td>
<td>2.51 (0.8)</td>
<td>2.65 (0.8)</td>
</tr>
<tr>
<td></td>
<td>2.32 (0.7)</td>
<td>2.89 (0.8)</td>
</tr>
<tr>
<td>Making disapproving groans</td>
<td>2.94 (0.9)</td>
<td>2.43 (0.8)</td>
</tr>
<tr>
<td></td>
<td>2.72 (0.8)</td>
<td>2.59 (0.8)</td>
</tr>
<tr>
<td>Making sarcastic remarks or gestures (staged yawning, eye rolling)</td>
<td>3.10 (0.9)</td>
<td>2.30 (0.9)</td>
</tr>
<tr>
<td></td>
<td>3.04 (0.9)</td>
<td>2.50 (0.8)</td>
</tr>
<tr>
<td>Sleeping in class</td>
<td>2.97 (1.0)</td>
<td>2.43 (0.8)</td>
</tr>
<tr>
<td></td>
<td>2.59 (0.9)</td>
<td>2.56 (0.8)</td>
</tr>
<tr>
<td>Not paying attention in class (doing work for other classes, reading a newspaper, not taking notes)</td>
<td>2.72 (0.9)</td>
<td>2.92 (0.9)</td>
</tr>
<tr>
<td></td>
<td>2.90 (0.8)</td>
<td>2.62 (0.8)</td>
</tr>
<tr>
<td>Holding conversations that distract your or other students</td>
<td>3.28 (0.8)</td>
<td>3.58 (0.9)</td>
</tr>
<tr>
<td></td>
<td>3.25 (0.8)</td>
<td>3.39 (0.7)</td>
</tr>
<tr>
<td>Refusing to answer direct questions</td>
<td>2.59 (1.0)</td>
<td>2.82 (1.0)</td>
</tr>
<tr>
<td></td>
<td>2.48 (1.0)</td>
<td>2.42 (1.0)</td>
</tr>
<tr>
<td>Using a computer during class for purposes not related to the class</td>
<td>3.01 (0.6)</td>
<td>2.02 (0.9)</td>
</tr>
<tr>
<td></td>
<td>2.92 (0.8)</td>
<td>1.63 (0.7)</td>
</tr>
<tr>
<td>Using cell phones or pagers during class</td>
<td>2.72 (0.8)</td>
<td>2.44 (0.9)</td>
</tr>
<tr>
<td></td>
<td>2.77 (0.9)</td>
<td>2.27 (0.7)</td>
</tr>
<tr>
<td>Arriving late for class</td>
<td>2.71 (0.8)</td>
<td>3.26 (0.6)</td>
</tr>
<tr>
<td></td>
<td>2.53 (0.8)</td>
<td>3.18 (0.6)</td>
</tr>
<tr>
<td>Leaving class early</td>
<td>2.20 (0.9)</td>
<td>2.91 (0.7)</td>
</tr>
<tr>
<td></td>
<td>2.54 (0.7)</td>
<td>2.71 (0.7)</td>
</tr>
<tr>
<td>Cutting class</td>
<td>2.86 (0.8)</td>
<td>2.84 (0.8)</td>
</tr>
<tr>
<td></td>
<td>2.48 (0.8)</td>
<td>2.69 (0.7)</td>
</tr>
<tr>
<td>Being unprepared for class</td>
<td>3.17 (0.7)</td>
<td>2.90 (0.7)</td>
</tr>
<tr>
<td></td>
<td>2.85 (0.8)</td>
<td>3.13 (0.7)</td>
</tr>
<tr>
<td>Creating tension by dominating class discussion</td>
<td>1.90 (0.7)</td>
<td>2.81 (0.8)</td>
</tr>
<tr>
<td></td>
<td>2.16 (0.9)</td>
<td>2.51 (0.7)</td>
</tr>
<tr>
<td>Cheating on exams or quizzes</td>
<td>2.83 (1.0)</td>
<td>1.56 (0.7)</td>
</tr>
<tr>
<td></td>
<td>3.10 (1.1)</td>
<td>2.05 (0.6)</td>
</tr>
<tr>
<td>Demanding make-up exams, extensions, grade changes, or other special favors</td>
<td>3.29 (0.9)</td>
<td>2.13 (0.8)</td>
</tr>
<tr>
<td></td>
<td>3.23 (0.9)</td>
<td>2.40 (0.8)</td>
</tr>
</tbody>
</table>

Notes. ¹ Respondents used the scale 1 = never, 2 = sometimes, 3 = usually, and 4 = always for this item. ² Respondents used the scale 1 = never, 2 = rarely, 3 = sometimes, and 4 = often for this item.
Factor Analysis Outcomes

**Student incivility.** Participants were asked to rate 16 behaviors that could potentially demonstrate incivility. Because of the nature of instrument development, responses from both students and faculty are included in this analysis; in theory, student and faculty perceptions of student incivility should be approximately the same. Using a varimax rotation, eigenvalues > 1.0, and factor loadings > .50, exploratory factor analysis yielded three factors explaining 64.6% of the variance. Individual items and factor loadings are presented in Table 6. Behaviors identified for each factor are illustrated using faculty and student narrative comments derived from Section III of the 2006 study.

Factor 1 refers to distracting or disrespectful classroom behaviors, such as sarcasm, sleeping in class, making disapproving groans, or refusing to answer direct questions. The following student comment illustrates Factor 1: “Students who carry on private conversations during class, sleep during class, and students who put their feet on your seat back really drive me nuts.” A faculty member put it this way, “Students resort to rude classroom behavior by disrupting speakers and laughing at other students opinions.”

Factor 2 refers to disrespect or disregard for others, such as arriving late for class or using a computer for non-class related issues. The following student comment illustrates Factor 2: “Students play games on their computers, text message people during class, and simply do not take their schooling seriously. They show up late and then grumble about class to other students.” A faculty member made a similar observation: “Students are rude when they arrive late, pack up and leave early, monopolize class discussion, and use their cell phones in class.”

Factor 3 refers to a general disinterest in class, such as being unprepared or leaving early. A student comment exemplifies this factor. “There is a general lack of respect for the learning environment; interruptions, personal conversations, excessive disturbances, lateness, and being unprepared.” A faculty respondent said, “So many students come to class unprepared and then expect to be ‘spoon-fed.’”

**Faculty incivility.** Participants were asked to rate 20 behaviors that could potentially demonstrate incivility. Student and faculty responses were analyzed simultaneously. Using varimax rotation, eigenvalues > 1.0, and factor loadings > .50, exploratory factor analysis yielded three factors explaining 64.6% of the variance. The individual items and factor loadings are presented in Table 7. Factor 1 addresses generally uncivil behaviors, such as making rude gestures toward others, exerting superiority over others, punishing the class for one student’s misbehavior, and ignoring disruptive student behaviors. One faculty commented about these behaviors: “Instructors are not always consistent. Some faculty members threaten students by not being open or available. Students feel that faculty are “out to get them” and believe that if they approach them, they will retaliate and make their lives miserable.” A student made a similar observation, “Throughout my nursing career, I have found many instructors have a very pushy, rude, and sometimes make embarrassing comments to the students in front of patients and other students.”

Factor 2 refers to classroom management issues such as faculty arriving late, being unprepared for scheduled activities, and canceling activities without warning. One student stated, “Faculty is frequently late, constantly making changes to the schedule, and inflexible. Grading is extremely subjective and varies from instructor to instructor. They frequently switch patient assignments at the last minute and then give unsatisfactory grades if the students need to look up a medication because they weren’t given a chance to prepare.” One faculty respondent commented, “Some instructors intimidate and belittle students—they have their favorites and they talk about students to other faculty causing pre-conceived ideas and labeling of students.”

Factor 3 addresses flexibility issues, such as refusing to allow make-up exams and deviating from the course syllabus. A student described this factor “Faculty are inflexible and faculty have too much subjective leeway for clinical grades.” Faculty responded in a similar way, “I find some faculty unprepared, opinionated and ununiformed. Since these faculty are teaching core courses, I am outraged. [The students are] cheated out of a good education because [they] happened to choose the faculty member who is not keeping up to date (and may never have). The department is not upholding any teaching standards.”

Table 3. Percentage “Yes” Responses to Student Behaviors to “Has This Happened to You or Someone You Know in the Past 12 Months?”

<table>
<thead>
<tr>
<th>Student Behaviors</th>
<th>Percentage Student “Yes” Responses</th>
<th>Percentage Faculty “Yes” Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>General taunts or disrespect to other students</td>
<td>48.0</td>
<td>57.7</td>
</tr>
<tr>
<td>General taunts or disrespect to faculty</td>
<td>49.2</td>
<td>56.8</td>
</tr>
<tr>
<td>Challenges to faculty knowledge or credibility</td>
<td>62.1</td>
<td>74.9</td>
</tr>
<tr>
<td>Harassing comments (racial, ethnic, gender) directed at students</td>
<td>12.3</td>
<td>16.5</td>
</tr>
<tr>
<td>Harassing comments (racial, ethnic, gender) directed at faculty</td>
<td>7.7</td>
<td>18.6</td>
</tr>
<tr>
<td>Vulgarity directed at students</td>
<td>14.4</td>
<td>15.8</td>
</tr>
<tr>
<td>Vulgarity directed at faculty</td>
<td>15.0</td>
<td>25.3</td>
</tr>
<tr>
<td>Inappropriate e-mails to other students</td>
<td>13.4</td>
<td>21.4</td>
</tr>
<tr>
<td>Inappropriate e-mails to faculty</td>
<td>7.4</td>
<td>34.1</td>
</tr>
<tr>
<td>Threats of physical harm against other students</td>
<td>2.7</td>
<td>8.2</td>
</tr>
<tr>
<td>Threats of physical harm against faculty</td>
<td>1.3</td>
<td>9.8</td>
</tr>
</tbody>
</table>
Table 4. Means (SDs) of Faculty and Student Perceptions and Frequencies of Potentially Disruptive Faculty Behaviors

<table>
<thead>
<tr>
<th>Faculty Behaviors</th>
<th>Faculty Perceptions</th>
<th>Student Perceptions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Do you consider</td>
<td>How often have</td>
</tr>
<tr>
<td></td>
<td>this behavior</td>
<td>you experienced</td>
</tr>
<tr>
<td></td>
<td>disruptive?¹</td>
<td>or seen this in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the past 12 months?²</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arriving late for schedule activities</td>
<td>2.78 (0.9)</td>
<td>2.16 (0.8)</td>
</tr>
<tr>
<td>Leaving schedule activities early</td>
<td>2.43 (0.9)</td>
<td>1.86 (0.8)</td>
</tr>
<tr>
<td>Canceling scheduled activities without warning</td>
<td>2.85 (1.0)</td>
<td>1.72 (0.7)</td>
</tr>
<tr>
<td>Being unprepared for scheduled activities</td>
<td>2.99 (0.9)</td>
<td>2.00 (0.8)</td>
</tr>
<tr>
<td>Not allowing open discussion</td>
<td>2.64 (0.9)</td>
<td>2.00 (0.8)</td>
</tr>
<tr>
<td>Refusing to allow make-up exams, extensions, or grade changes</td>
<td>2.28 (0.9)</td>
<td>2.26 (0.9)</td>
</tr>
<tr>
<td>Ineffective teaching style/methods</td>
<td>2.80 (0.9)</td>
<td>2.64 (0.9)</td>
</tr>
<tr>
<td>Deviating from the course syllabus, changing assignments or test dates</td>
<td>2.49 (0.9)</td>
<td>2.38 (0.8)</td>
</tr>
<tr>
<td>Being inflexible, rigid and authoritarian</td>
<td>3.02 (0.9)</td>
<td>2.28 (0.9)</td>
</tr>
<tr>
<td>Punishing the entire class for one student’s misbehavior</td>
<td>3.21 (1.0)</td>
<td>1.66 (0.8)</td>
</tr>
<tr>
<td>Making statements about being disinterested in the subject matter</td>
<td>2.71 (1.0)</td>
<td>1.66 (0.7)</td>
</tr>
<tr>
<td>Being distant and cold towards others (unapproachable, reject students opinions)</td>
<td>3.19 (0.9)</td>
<td>2.05 (0.9)</td>
</tr>
<tr>
<td>Refusing or reluctant to answer questions</td>
<td>2.99 (0.9)</td>
<td>2.02 (0.9)</td>
</tr>
<tr>
<td>Subjective grading</td>
<td>3.04 (1.0)</td>
<td>2.14 (0.9)</td>
</tr>
<tr>
<td>Making condescending remarks or put downs</td>
<td>3.44 (0.9)</td>
<td>1.84 (0.9)</td>
</tr>
<tr>
<td>Exerting superiority or rank over others</td>
<td>3.14 (0.9)</td>
<td>2.04 (0.9)</td>
</tr>
<tr>
<td>Threatening to fail student for not complying to faculty’s demands</td>
<td>3.11 (1.0)</td>
<td>1.77 (0.9)</td>
</tr>
<tr>
<td>Making rude gestures or behaviors toward others</td>
<td>3.34 (1.0)</td>
<td>1.47 (0.7)</td>
</tr>
<tr>
<td>Ignoring disruptive student behaviors</td>
<td>2.90 (1.0)</td>
<td>2.30 (0.9)</td>
</tr>
<tr>
<td>Being unavailable outside of class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(not returning calls or e-mails, not maintaining office hours)</td>
<td>3.12 (0.9)</td>
<td>2.11 (0.9)</td>
</tr>
</tbody>
</table>

Notes. ¹Respondents used the scale 1 = never, 2 = sometimes, 3 = usually, and 4 = always for this item. ²Respondents used the scale 1 = never, 2 = rarely, 3 = sometimes, and 4 = often for this item.
Reliability estimates. Inter-item reliability coefficients (Cronbach’s $\alpha$) were calculated for each of the three student incivility factors identified from the exploratory factor analysis. These are the reliability coefficients: Factor 1 = .88, Factor 2 = .74, and Factor 3 = .68. Cronbach’s $\alpha$ for Factor 3 is low, and this is primarily due to the fact that Factor 3 is only comprised of 2 items. Inter-item reliability coefficients were also calculated for each of the three faculty incivility factors identified from the exploratory factor analysis. The reliability coefficients are: Factor 1 = .94, Factor 2 = .84, and Factor 3 = .70. Each analysis indicated adequate levels of reliability.

Discussion

The INE is used to describe student and faculty perceptions of incivility in nursing education. It includes quantitative and qualitative items to measure uncivil student and faculty behaviors in nursing education from both the faculty and students’ points of view. The open-ended questions allow for descriptions.

<table>
<thead>
<tr>
<th>Faculty Behaviors</th>
<th>Percentage Student “Yes” Responses</th>
<th>Percentage Faculty “Yes” Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>General taunts or disrespect to other students</td>
<td>22.5</td>
<td>24.9</td>
</tr>
<tr>
<td>General taunts or disrespect to faculty</td>
<td>14.0</td>
<td>45.4</td>
</tr>
<tr>
<td>Challenges to faculty knowledge or credibility</td>
<td>50.9</td>
<td>50.5</td>
</tr>
<tr>
<td>Harassing comments (racial, ethnic, gender) directed at students</td>
<td>5.5</td>
<td>9.2</td>
</tr>
<tr>
<td>Harassing comments (racial, ethnic, gender) directed at faculty</td>
<td>1.5</td>
<td>11.8</td>
</tr>
<tr>
<td>Vulgarity directed at students</td>
<td>2.6</td>
<td>5.9</td>
</tr>
<tr>
<td>Vulgarity directed at faculty</td>
<td>4.1</td>
<td>10.3</td>
</tr>
<tr>
<td>Inappropriate e-mails to other students</td>
<td>8.9</td>
<td>8.1</td>
</tr>
<tr>
<td>Inappropriate e-mails to faculty</td>
<td>1.1</td>
<td>24.5</td>
</tr>
<tr>
<td>Threats of physical harm against other students</td>
<td>0.4</td>
<td>1.6</td>
</tr>
<tr>
<td>Threats of physical harm against faculty</td>
<td>0.4</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Table 5. Percentage “Yes” Responses to Faculty Behaviors to “Has This Happened to You or Someone You Know in the Past 12 Months?”

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making sarcastic remarks or gestures (staged yawning, eye rolling)</td>
<td>79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not paying attention in class (doing school work for other classes, reading a newspaper, not taking notes)</td>
<td>75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Holding conversations that distract you or other students</td>
<td>74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleeping in class</td>
<td>73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making disapproving groans</td>
<td>71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheating on exams or quizzes</td>
<td>69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demanding make-up exams, extensions, grade changes, or other special favors</td>
<td>67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refusing to answer direct questions</td>
<td>66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acting bored or apathetic</td>
<td>65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using cell phones or pagers during class</td>
<td>80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creating tension by dominating class discussion</td>
<td>70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arriving late for class</td>
<td>70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using a computer during class for purposes not related to the class</td>
<td>60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leaving class early</td>
<td>51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being unprepared for class</td>
<td></td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>Cutting class</td>
<td></td>
<td>76</td>
<td></td>
</tr>
</tbody>
</table>

Note. For clarity, decimal points from factor loadings have been omitted.

Table 6. Factors and Factor Loadings for Student Incivility Items
Table 7. Factors and Factor Loadings for Faculty Incivility Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making rude gestures or behaviors toward others</td>
<td>85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making condescending remarks or put downs</td>
<td>84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exerting superiority or rank over others</td>
<td>77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being distant and cold towards others (unapproachable, reject students’ opinions)</td>
<td></td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>Punishing the entire class for one student’s misbehavior</td>
<td>75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threatening to fail student for not complying to faculty’s demands</td>
<td>66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refusing or reluctant to answer questions</td>
<td>65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being unavailable outside of class (not returning calls or emails, not maintaining office hours)</td>
<td>60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being inflexible, rigid, and authoritarian</td>
<td>58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjective grading</td>
<td>56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making statements about being disinterested in the subject matter</td>
<td>52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leaving scheduled activities early</td>
<td></td>
<td>81</td>
<td></td>
</tr>
<tr>
<td>Arriving late for scheduled activities</td>
<td></td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Being unprepared for scheduled activities</td>
<td></td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>Canceling scheduled activities without warning</td>
<td></td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>Refusing to allow make-up exams, extension, or grade changes</td>
<td></td>
<td></td>
<td>73</td>
</tr>
<tr>
<td>Ineffective teaching style/methods</td>
<td></td>
<td></td>
<td>71</td>
</tr>
<tr>
<td>Deviating from the course syllabus, changing assignments or test dates</td>
<td></td>
<td></td>
<td>68</td>
</tr>
</tbody>
</table>

Note: For clarity, decimal points from factor loadings have been omitted.

of perceived faculty and student behavior and proposed solutions (remedies). A unique feature of the INE is that the same instrument can be completed by both groups and may be used to measure both faculty and student perceptions of incivility in the same study.

The INE provides a stable structure of items which are reliably answered by survey participants. These data indicate that INE items generally address three areas of concern for both student disruptive behaviors and faculty disruptive behaviors. Areas of concern for students include demonstrating distracting or disrespectful classroom behavior, showing disregard for others, and being generally disinterested in one’s education. Areas of concern for faculty include demonstrating disrespectful or uncivil behaviors, performing poorly with classroom management, and showing inflexibility.

The INE distinguishes areas of faculty and student agreement and disagreement on disruptive and threatening behaviors. In the 2006 study (Clark 2008c, 2008d), both groups viewed many of the uncivil student behaviors in the same way. Where there were differences, faculty perceived leaving class early, creating tension by dominating class discussions, and cheating on exams or quizzes as more uncivil than students perceived the same behaviors. [Note: This finding contradicts pilot test results, which suggested that faculty members were less likely than students to regard such student behaviors as uncivil (Clark and Springer, 2007a, 2007b).] Faculty may be more affected by these behaviors because of the importance they place on student attendance and learning critical material. When areas of disagreement are identified, they become ‘talking points’ for faculty and student exchange and dialogue. Faculty and students can work together to establish a culture of civility by co-creating classroom norms, by taking mutual responsibility to address incivility swiftly and fairly, and by participating in public forums to discuss and develop strategies for effective prevention and intervention.

In the 2006 study, qualitative responses from both groups were similar. Both groups reported feeling stressed from heavy work and academic demands, burnout, and juggling multiple roles and responsibilities. The uncivil ways in which faculty and students behave were also similar. At times, both groups behave disrespectfully – both make rude and demeaning comments toward one another. Because both groups display uncivil behavior, viewing incivility an interactive process where both groups bear a responsibility for the behavior may be a point of discussion. When faculty and students work together to build a more respectful learning environment, civility is a likely outcome (Clark 2008c, 2008d).

Conclusion
The INE has the potential to assist researchers with studies designed to measure faculty and student perceptions of incivility in nursing education and to examine differences regarding levels of nursing education, gender, age, ethnicity, and regions of the U.S. The INE may be used to compare uncivil behaviors among adjunct, clinical, teaching, and research faculty. Findings from the INE may also be used as an assessment tool to measure the perceived levels of faculty and student incivility in nursing programs. Findings may stimulate dialogue among nursing administrators, faculty, and students about prevention and intervention strategies for incivility in nursing education.

The INE may be translated into other languages to measure incivility in nursing programs in non-English speaking countries. Although instrument translation is a complex and arduous pro-
cess, the INE has been translated into Farsi, Hebrew, and Mandarin Chinese. The Mandarin Chinese version is currently being used to study incivility in Hangzhou, China with Chinese nursing faculty and students. Other researchers and nursing educators are encouraged to broaden and extend the use of the INE survey in order to better understand incivility in the classroom and to improve the learning environment for all faculty and students.

Authors' Note: Because the INE survey is a relatively new instrument, further psychometric testing is needed to confirm or improve validity and reliability estimates reported in this article. For a copy of the INE and permission to use it, please contact the corresponding author.

REFERENCES

Cynthia M. Clark PhD, RN is a Professor and Judy Farnsworth PhD, RN is Research Faculty in the Department of Nursing at Boise State University. 1910 University Drive, Boise, ID 83725-1840. R. Eric Landrum, PhD is a Professor of Psychology at the same institution. Corresponding author, Dr. Clark, may be contacted at cclark@boisestate.edu.
Conspiracy Theories in African American Culture: A Concept Analysis

The concept of conspiracy theory is seldom considered in relation to health care; however, this concept can greatly influence patients’ decisions to seek health care, trust their providers, and make behavioral changes affecting their health. Belief in conspiracy theories may play a significant role in health care, particularly among African Americans. In daily practice, some African American patients are skeptical of health care providers and the health care system. They may express concern about discrimination, fear of victimization, distrust, and exploitation. Indeed physician attitudes and interactions with patients are often colored by the patient’s race (Lillie-Blanton, Brodie, Rowland, Altman and McIntosh, 2000). Although conspiracy theories are not unique to African Americans, Waters (1997) reported that a belief in conspiracy theories may be linked to areas of uncertainty in interethnic relations.

My Perspective

As an African American provider, I’m often viewed as an individual who can be trusted to provide accurate and unbiased information. The concept of conspiracy theory was brought to my attention by an adolescent patient. She expressed genocidal fears and beliefs in conspiracies. As a researcher, I wished to explore the effect of conspiracy theories on African American women’s contraceptive choices. Before I embarked on this exploration, however, it was important to clarify the concept of conspiracy theory. The purpose of this concept analysis is to define the concept of conspiracy theory and to raise awareness of the role conspiracy theories play in today’s health care environment.

Method

Concept analysis enables nursing researchers to understand and clarify defining characteristics of unique words or concepts. It is often used in theory development to yield clear definitions, which accurately reflect the relationships between concepts in a hypothesis (Walker & Avant, 2005). Walker and Avant’s (2005) method of conducting a concept analysis was used to guide this research. The purpose of concept analysis is to distinguish between defining and irrelevant attributes of a concept as well as determine the concept’s similarities and differences with related concepts (Walker & Avant, 2005). Consistent with the work of Wilson (1963), which Walker and Avant modified, this concept analysis includes 8 steps: a) selecting a concept, b) determining the aim or purpose of the analysis, c) identifying the concept’s uses, d) defining its attributes, e) developing a model case, f) providing a contrary case, g) analyzing antecedents and consequences, and h) specifying empirical referents.

Procedure

A review of literature was performed to provide clarification of the concept of conspiracy theory in African American culture. Relevant literature was obtained by searching the electronic databases of CINAHL, PubMed, MEDLINE, Black Studies Center, ASSIA and ERIC. Search terms included conspiracy theory, healthcare disparities, and African American culture. Tuskegee, a significant event in African American culture and medicine was also entered as a key word. No date range was used in an effort to include all pertinent articles. After careful review, nine articles were chosen from the 300 obtained as germane to this concept analysis.

Uses of the Concept

Conspiracy is defined as “the act of conspiring together; a secret plan by a group to do something unlawful or harmful; an agreement among conspirators” (Oxford American College Dictionary, 2002). The Encarta® World English Dictionary (2007) online defines conspiracy as an act of working in secret to obtain some goal, usually understood as having a negative connotation. A theory is defined as a supposition or system of ideas intended to explain something especially one based on general principles independent of the thing to be explained (Merriam-Webster 11th Collegiate Dictionary, 2003).

The concept conspiracy theory is defined by the Oxford American College Dictionary (2002), as “a belief that some convert but influential organization is responsible for an unexplained event”. The Merriam-Webster 11th Collegiate Dictionary (2003) defines it similarly as a theory that explains an event or set of circumstances resulting from a secret plot by usually powerful conspirators. Clark (2002) defined conspiracy theory as a proposed explanation of some historical event (or events) in terms of the significant causal agency of a relatively small group of persons, the conspirators, and acting in secret.
In relationship to a particular group, Bird and Bogart (2005) defined conspiracy beliefs as convictions about large-scale discrimination by the government or health care system against a vulnerable group. Conspiracy theories are understood as a class of ethnosociologies, which refer to theories that ordinary people use to explain social phenomena and are used to explain social misfortunes by attributing them to deliberate, often secretly planned actions of a particular group of people, (Waters, 1997).

**Defining Attributes**

Defining attribute or characteristics of an elusive concept such as conspiracy theory may be clarified by examining related concepts and applying broad insight (Walker & Avant, 2005). Related concepts in the literature are discrimination and powerlessness. Conspiracy beliefs and theories are prevalent in African American culture. For many, these beliefs and theories stem from discriminatory interactions with the larger majority society. Historical events such as the Tuskegee Syphilis study, atrocities against blacks during the civil rights era, and America's eugenics movement have greatly influenced African Americans’ distrust in the health care system. Discrimination is defined as the unjust or prejudicial treatment of people or things especially on the grounds of race, age or sex (Oxford Dictionary, 2002). Most African Americans routinely experience insidious, subtle, covert forms of racism and discrimination (Carlson & Chamberlain, 2004). These insults influence the perception that care provided by health professionals may be discriminatory or below accepted standards.

Powerlessness is defined as being devoid of strength or resources (Merriam-Webster, 2003). Simmons and Parsons (2005) described the stages of paranoia that include a feeling of helplessness and victimization leading to generalized mistrust. Individuals’ feelings of victimization, discrimination and powerlessness have been correlated with their beliefs in conspiracy theories (Parsons et al, 1998).

**Model Case**

A model case is an example demonstrating all of the defining attributes of a concept. A model case of the concept of conspiracy theory in African American culture follows.

Kay is a 35 year-old female who presents to the women’s health department for a comprehensive physical exam. She declines a method of birth control stating that she doesn’t believe in birth control because it’s a form of racial genocide. As an African American female who has been a victim of past discrimination in education, employment, housing, and health care, she distrusts the medical establishment. During a discussion of Kay’s beliefs, the clinician learned that many of Kay’s peers believe there is some truth to conspiracy theories involving African Americans.

This case illustrates the concept of conspiracy theory in African American culture. Past influences of discrimination, powerlessness and victimization are evident in this model. The health care provider must be able to engage the patient in a dialogue about her beliefs and their impact on her health care decision-making.

**Contrary Case**

A contrary case is an example providing clear evidence of what a concept is not. It serves as a conceptual counterpoint to the model case.

Teresa is a 30 year-old African American female who presents to the women’s health department for her annual comprehensive physical exam. She declines a method of contraception stating she believes in natural family planning and likes to be in control of her body. Her man-

In this example, the patient demonstrates power and control over her life and choices. Although she is African American and may have faced overt or covert discrimination in the past, it has not colored her interactions with health care institutions and providers.

**Antecedents and Consequences**

Analyzing the antecedents and consequences of a concept allows for further evaluation of the social contexts in which the concept is used and refinement of the defining attributes (Walker & Avant, 2005). Antecedents are incidents or events that must be present prior to occurrence of the concept, while consequences happen as a direct result of the concept. Belief in conspiracy theories by African Americans can be related to the long term perceived persecution by the majority establishment. Feelings of persecution, racial prejudice, and paranoia often precede or coexist with conspiracy beliefs. Another antecedent to conspiracy theory is the assumption that negative events in one’s life are caused by fate and external forces, rather than the result of internal or personal control (Crocker, Luhtanen, Broadnax, & Blaine, 1999). Such assumptions lend themselves to belief in system blame.

Consequences of believing in conspiracy theories include social isolation and limited interaction with the larger majority group. Social isolation may lead to a narrowing view of the world and an inability to function within the larger society. Feelings of distrust and belief in conspiracies can contribute to impaired judgment and faulty decisions.

**Empirical Referents**

Empirical referents are used to measure a concept or demonstrate occurrence of the concept. To measure the concept of conspiracy theory, one must elicit the responses of the participants to questions about their belief systems, perceptions of perceived persecution, powerlessness and discrimination. All of these are subjective measures with the potential to provide insight and capture the essence of the concept. Surveys and instruments have been developed by researcher to assess participants’ beliefs in conspiracy theories (Bird & Bogart, 2005; Crocker et al., 1999; Simmons & Parsons, 2005; Waters, 1997).

**Nursing Implications**

Although patients may not express beliefs in conspiracy theories, it is important that healthcare providers recognize that these beliefs about healthcare exist. Feelings of mistrust and apprehension often preclude patients from seeking timely entry into formal health care systems. Studies have shown that delayed entry slows diagnosis and treatment leading to an increase in morbidity and mortality (Dovidio, Penner, Albrecht, Norton, Gaertner, & Shelton, 2008; Graham-Garcia, Raines, Andrews, & Mensah, 2001; Peters, Aronian & Flack, 2006).

Beliefs in conspiracy theories are also related to healthcare disparities. All minority groups are universally affected by differences in healthcare access, diagnosis rates, and treatment regimens; however, the variation of health status between African American and Caucasian groups is vast (U.S. Department of Health & Human Services, 2000). Some disparities cannot be explained sufficiently by unequal access, cultural and linguistic barriers, complexity of healthcare services, and inadequate insurance (Sarto, 2005). Patient-provider interactions are influential also. The Institute of Medicine’s (2003) report, *Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare*, revealed that provider perceptions and beliefs about patients play a significant role in clinical care. Negative perceptions, stereotypes, and prejudice about an ethnic group often affect clinical decision-making. Patients often grasp these subtle behaviors in provider
interactions, which reinforce their feelings of powerlessness and helplessness.

Research. Much has been done since the Institute of Medicine’s report in 2003. Many research studies have documented the incidence of healthcare disparities and its impact on society (Bent-Goodley, 2007; Boulware, Cooper, Ratner, LaVeist & Powe, 2003; Carlson & Chamberlain, 2003; Dovidio et al., 2008; Freedman, 1998; Giddings, 2005). These studies generated public awareness and led to development of educational programs about cultural and ethnic differences, including knowledge about African American culture and beliefs. Open discussion of health disparities and national health policy initiatives, such as The National Partnership for Action (http://www.omhrc.gov/npa/), have been instituted as a strategy for reducing and eliminating health disparities. Nurse can and should join the national dialogue as well as develop, design and conduct research projects on health disparities.

Practice. Nurses can play a significant role in reducing feelings of powerlessness and distrust in patients. For many patients, nurses are often the first professionals encountered when patients seek healthcare services. These encounters offer possibilities for building and establishing trusting relationships. Nurses must continue to advocate for patients. Conducting an open dialogue with providers about patient care can help shed light on medical decision-making in light of disparate care. In these “a-ha” moments, behaviors and beliefs are called into question and behavior modification begins.

Conclusion

Concept analysis is essential tool for discovering subtleties and nuances of language. Peeling back the layers of meaning provides clarity and understanding for concepts used in research. The results of this concept analysis revealed that attributes of powerlessness, mistrust/paranoia and discrimination shape African American culture and beliefs in conspiracy theories (see Figure 1). Belief in conspiracies adds complexity to the health care environment, which should not be understated or taken lightly. Such beliefs can prevent health care providers from assisting patients in developing significant changes in their health status. Nurses are in a unique position to form a trusting relationship with their African American patients. Through relationship, nurses lay the groundwork for providing factual and culturally relevant information necessary to mitigate their patients’ fears and long-standing mistrust of healthcare professionals.

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Abstract: African Americans have more health problems than the majority population, due in part to lack of access to health care, poorer quality of health care and nonadherence/compliance to recommended treatment. The author proposes a psychosocial model of racism to predict adherence/compliance to treatment and health outcomes for African Americans with cancer. The model includes stress factors such as sociodemographic factors, environmental factors, cultural factors and racism factors, which may positive or negatively influence such mediator variables as levels of stress, coping, depression, trust, and social support. This model may be used to guide future research studies on minority groups with cancer and other health problems with implications for bridging the health disparities gap in the U.S.

Key words: adherence, African Americans, compliance, health outcomes, racism

Psychosocial Model: Racism as a Predictor of Adherence and Compliance to Treatment and Health Outcomes among African Americans

African Americans have the highest morbidity and mortality rates of all racial and ethnic groups in the U.S. (Barton, 2007; IOM, 2003). They often have limited resources, lack of access to health care, and health utilization (Barton, 2007). Even when access to care is not a problem, they do not adhere/comply to the recommended health treatment, resulting in poor health outcomes (Kennedy & Woods, 2004). African Americans experience many stressors related to racism in their environment, which may lead to psychosocial problems (Kennedy, Mathis & Woods, 2007). Even so, psychosocial interventions are typically not considered as a primary treatment in their care. Research is needed to address the psychosocial sequelae of racism as a predictor of adherence/compliance to health care treatment recommendations.

Literature Review

Researchers have begun to establish a relationship between social support and cancer prognosis (Giese-Davis, Koopman, Butler, et al., 2004; Goodwin, 2004; Kissane, Love, Hatton, Bloch, et al., 2004; Kissane, Bloch, Smith et al., 2003). Some studies of social support, coping and psychosocial interventions with breast cancer patients have reported positive outcomes (Bulter, Koopman, Cordova, et al., 2003; Kissane et al., 2003; Vos, et al., 2004).

In a study addressing psychosocial treatment of breast cancer survivors related to stress and health outcomes, Spiegel et al (1989) used the group supportive expression treatment model. This model helps cancer patients to manage their illness by discussing common problems and sharing of their experiences. Spiegel et al concluded that patients often choose to overcome social isolation imposed by illness through therapeutic models that encourage emotional expression, rather than attempting to suppress or channel it.

Cancer has been linked to a number of physiological and stress-related factors, but few models demonstrate the relationship of psychosocial factors with the presence of cancer. Clark, Anderson, Clark & Williams (1999) proposed a biopsychosocial model in racism as a stressor for African Americans called A Contextual Model to Examine the Biopsychosocial Model Effects of Perceived Racism. These researchers propose that institutional racism may affect health even when it is not perceived as a stressor. The results of institutional racism may lead to the lack of goods, services, and opportunities for African American resulting in negative health consequences.

PSYCHOSOCIAL MODEL OF RACISM

The author proposes a model for considering the psychosocial sequelae of racism predicting adherence/compliance to treatment and health outcomes (See Figure 1.) The model includes sociodemographic factors, environmental factors, cultural factors, racism factors, stress, depression, trust, social support, coping skills, and adherence/compliance with respect to health care outcomes. Such a model is useful for guiding research studies on African Americans and other minority groups with cancer. Its focus on adherence/compliance to treatment may have implications for identifying possible strategies and psychosocial interventions to bridge the health disparities gap in the U.S. Health disparities in general are the domain of epidemiology, which is the science of the distribution of diseases and risk factors across populations (Jones, Ogbar & Braveman, 2004).

Racism

Various psychosocial issues related to racism may play a major role in African Americans’ health seeking behavior, their access to care, health utilization, development of health problems (e.g., cancer), and adherence/compliance behavior and health outcomes. Race-associated differences in health outcomes are
documented in this country but for the most part they are poorly explained (Jones, 2000). The variable of race is a rough and inexact proxy for social economic status, culture, and genes, which represents the social classification of people in a race conscious society such as the U.S. (Jones, 2000). Race is not a biological construct reflecting innate differences. Instead, race is a social construct that precisely captures the impact of racism (Jones, 2000). For this reason, some investigators hypothesize that race-associated differences in health outcomes are due to the effects of racism (Jones, 2000; Williams & Collins, 2001).

**Levels of Racism**

Racism can be defined as a system of structuring opportunity, assigning value, and perpetuating discrimination and bias based on the social interpretation of phenotype ("race"). Racism exists on three levels: institutionalized, personally mediated, and internalized (Jones, 2000). **Institutionalized racism** includes structures, policies, practices, and norms of society differentiated by race (Jones, 2002). **Personally mediated racism** includes differential assumptions about abilities, motives, and intent of others based on race, as well as differential actions based on those assumptions. **Internalized racism** occurs when members of a stigmatized race accept negative messages about their own abilities and intrinsic worth (Jones, 2000). For example, health care disparities may relate to system quality indicators and provider/patient relationships, health provider bias and discrimination, and such patient variables as mistrust of the health care system and refusal of treatment.

**Racism's Role in Health Disparity**

Because of racism, African Americans are exposed to potential health risks that sustain race as a determinant of health status, irrespective of social class (Williams & Collins, 2001). Health care facilities are more likely to close in poor and minority communities (Alba, Logan, & Stults, 2000); however, irrespective of residence, African Americans and members of other minority groups are less likely than whites to receive appropriate medical treatment after they gain access to medical care (Mayberry, Mill, & Ofili, 2000; Reschovsky & Staiti, 2005). The causes of these health disparities are related to such factors as socioeconomic status (SES), insurance, and disease severity. It is likely that unconscious discrimination based on negative stereotypes of race and residence play a major role in contributing to health disparities. (Williams & Rucker, 2000; van Ryn & Burk, 2000) An investigation of segregation sheds light on the racial differences in some health outcomes having strong environmental components, but the author proposes that racism may influence adherence/compliance of African Americans and other minority groups, thereby predicting poor health outcomes.
Independent Variables: Stress Factors

Four stress factors serve as independent variables in the psychosocial model of racism: Sociodemographic factors, environmental factors, cultural factors, and racism factors. Each variable will be discussed individually.

Sociodemographic Factors

Sociodemographic variables in the model include age, race, sex, marital status, education, and SES (Anderson & Armstead, 1995). Racism may cause differences in life chances and living conditions creating inequitable socioeconomic conditions in education, employment and housing. Low SES is one of the most important predictors of adverse change in health status (Anderson & Armstead, 1995). In one study of African Americans, education was positively correlated with reports of racial discrimination, which was positively related to working class status, receipt of government assistance, and financial difficulties (Sigelman & Welch, 1991). Several researchers found racial discrimination positively correlated with education and unemployment, but was unrelated to income (Bobo & Suh, 1995; Gary, 1995; Landrine and Klonoff, 1996).

SES and age have been related to stress (Adams & Dressler, 1988). African Americans with lower SES are exposed to more chronic stress and experience poorer health outcomes than African Americans with higher SES, because those with lower SES possess fewer resources to cope with stressors (Papas, Queen, Hadden & Fisher, 1993). Research has shown that such demographic factors as age and gender are variables in perceived racism among African Americans (Adams & Dressler, 1988). For example, Krieger (1990) and Krieger and Sidney (1996), report that older African American adults may accept discriminatory treatment and not label it as racism. They conclude that denial of racism may be a coping response for minority groups which may have dire health consequences. Other studies have shown that older adult African American women report more mistrust of the "traditional health care system" and "people outside their race" than young adult African American women. Older women were more likely to report "discriminatory treatment" or "racism", whereas young adults were more likely to refer to the same events as "unfair treatment" or "inequality" (Kennedy & Arnold, 2004; Kennedy & Woods, 2004).

Environmental Factors

Stressful environmental conditions and various psychological and behavioral factors may influence how African Americans perceive and respond to their environment. Previous research findings indicate that segregation adversely affects access to high-quality medical care (Massey, Condran, & Denton, 1987). Even among middle-class African Americans, race dictates access to resources (e.g., medical care, schools, employment opportunities), which are commensurate with income level. Largely on the basis of race, they are excluded from neighborhoods where their white middle-class counterparts reside (Massey, Condran, & Denton, 1987; Villezmez, 1980).

African Americans may perceive several factors in their environment as stressful including a) substandard housing (Massey, Condran, & Denton, 1997), b) living in areas with health hazards, e.g., landfills, contaminated water supply (Bullard, 1983), c) lack of skilled labor and managerial jobs (Sigelman & Welch, 1991), d) low paying wages (Sigelman & Welch, 1991), e) unemployment (LeVeist, 1993), f) violence (LeVeist, 1993), g) drug infested communities (Lillie-Blanton, Anthony, & Schuster, 1993), and h) limited access to health care facilities (Kennedy et al., 2007). In addition, researchers have reported that the tobacco and alcohol industries have heavily targeted poor minority communities with advertising for their products (Hacker, Collins, & Jacobson, 1987; Moore, Williams, & Qualls, 1996). Exposure to these environmental factors may be linked to chronic and acute stress.

Cultural Factors

Social variables in the proposed model include familial roles, communication patterns, and beliefs about spirituality, self-efficacy, individualism, and collectivism. Although these factors are not intrinsically “cultural”, they may be associated with culture for a given group if they have special significance, worth, identity, or representation for members of a cultural group (Kreuter, Lukwago, Bucholz, Clark & Sanders-Thompson, 2002). These factors may be linked directly or indirectly to health-related behaviors, including acceptance of health promotion messages and initiatives (Kreuter, Lukwago, Bucholz, Clark, & Sanders-Thompson, 2002). The value systems, cultural practices or ways of coping for some African Americans may create the perception that a health condition is not a serious or life-threatening (Kennedy & Arnold, 2004). Even when African Americans reported compliance with health care appointments, they did not always practice healthy lifestyle interventions to reduce disease risk (Kennedy & Arnold, 2004).

Racism Factors

Although successive generations of African Americans may not identify health disparities as the result of racism's psychological effects, disparities have been reported because of racism (Kennedy et al., 2007). Racism in the U.S. contributes to a lack of resources for minority groups (e.g., health care providers, access to healthcare, health utilization, quality of health care). Perceived racism is the objective or subjective experiences of discrimination (Clark et al., 1999). African American patients who see physicians of their own race, rate the care they receive higher than when they see a physician from another race or ethnic group (Kennedy et al., 2007). Studies have shown that ethnic differences between physicians and their patients often create barriers to partnership and effective communication (Lukoschek, 2003; Mosley-Williams, Lumley, Gillis, et al., 2002; Thom, Kravitz, Bell, Krupat, et al., 2002). Patients and physicians belonging to the same race or ethnic group are more likely to share cultural beliefs, values and experiences, which make them more comfortable with each other (Lukoschek, 2003; Mosley-Williams, et al., 2002; Thom, et al., 2002) and increase patients’ participation in their own health care (Peterson, 2002).

Aroian, Vander Wal, Peters and Tate (2007) conducted a study of differences in dissatisfaction with health care of 103 African American and 101 white participants. African Americans reported greater dissatisfaction with health care than whites. Group differences included problems with health providers, geographic access, and appointment availability. These differences were found after researchers controlled for education, financial comfort, and supplemental health insurance, suggesting that dissatisfaction stems from racial/ethnic differences, rather than resources differences.

Mediator Variables

Mediator variables in the psychosocial model of racism include stress, coping, depression, trust, coping, social support. These mediator variables may have a negative or positive effect on African Americans’ adherence/compliance and health outcomes. Each variable be discussed individually.

Stress

Stress has been associated with high rates of somatic and psychiatric illness. Although stress is commonly measured by life events affecting an individual within a year's duration (Cohen & Williamson, 1991; Lazarus, 1966), perceptions resulting from those life events provide a more realistic measure of the effect stress has on an individual. Perceived racism refers to subjective experiences of prejudice or discrimination (Cohen, Kamarch, & Mermelestein, 1983). Perceived racism is not limited to obvious or overt experiences; it also incorporates subtle forms of racism.
such as belief systems and symbolic behaviors promulgating the ideas of “free will” (McConahay & Hough, 1976; Sears, 1991). Without conscious awareness, Caucasians may commit subtly racist acts, which members of a minority group may identify as evidence of underlying racism (LaVeist, 2002). An individual’s coping skills and evaluation of an event’s seriousness determine the psychological stress response (Lazarus & Folkman, 1984). Even so, the perception demanding the stress response may not be perceived as a stressor. Considerable evidence has shown that perceived stress is associated with physiological processes involved in susceptibility to diseases, including cancer (McEwen & Sellar, 1993).

Depression

The second mediator variable is depression. African Americans’ view of mental illness and their knowledge of its causes, symptoms, and treatment may influence help-seeking behavior and perception of mental health services (Chamberlain, Muntaner, Wåhlström, Nickerson, et al., 2001). Historically, mental health professionals have consistently under-diagnosed depressive disorders and over-diagnosed psychotic disorders, like schizophrenia, in the African American community (Mitchell & Herring, 2003). Depression is misdiagnosed in communities of color. Reasons for misdiagnosis include such cultural barriers as language, trust, and values in the patient-provider relationship, and reliance on family support and the religious community during episodes of emotional distress (Mitchell & Herring, 2003). Many individuals in minority culture “mask” depressive symptoms with somatic complaints, substance abuse/addiction, and other psychiatric illnesses. Socioeconomic factors contribute to African Americans seeking treatment from resources in their communities, such as religious leaders rather than mental health professionals (Coridan & O’Connell, 2002). Mental health service providers have not been sensitive to ethnic differences in the ways that clients recognize, define, and express symptoms of emotional distress (Mills, July 20, Retrieved 2004). This inattention to ethnic diversity may yield negative attitudes about mental health services among African Americans. Negative attitudes can cause delay in seeking care or follow-up, non-adherence to medical regimens, and use of alternative, nontraditional treatment with unpredictable outcomes and accountability (Chamberlain, et. al., 2001).

Trust

The third mediator variable in the model is trust. Petersen (2002) defined trust as an expectation that the word or promise of another person or group can be relied upon. He suggests that a key element in a therapeutic alliance is trust because it facilitates open communication and exchange of information. Trust is associated with patients’ loyalty to their provider (Keating Green, Kao, Gazamarian, et al., 2002; Safran, Montgomery, Chang, Murphy, et al., 2001). Trust is related to evaluation and one’s willingness to recommend hospitals and medical care to others (Hughes, Sellers, Teague & Knight, 2007; Joffe, Manocchia & Weeks, 2003). Some researchers found that trust and continuity in the physician-patient relationship were correlated with positive patient outcomes (Lukschesek, 2003; Mosley-Williams, et al., 2002; Thom, Kravit, Bell, Krupat, et al., 2002) and adherence/compliance to treatment (Thom et al., 2002; Safran et al., 2001).

Lack of trust. Lack of trust is correlated with voluntary withdrawal from primary care (Petersen, 2002). Hughes, Sellers, Fraser, Teague and Knight (2007) conducted focus groups with African Americans males and their female partners/spouses concerning their perception and knowledge about prostate cancer and their willingness to participate in screening and research studies. They reported a major concern with African American males not trusting their non-white physicians. Reasons given for lack of trust included a) previous experiences of not having their condition explained in details, b) cool atmosphere when they receive information via phone and visits, c) feelings that the physicians did not have a vested interest in treating them, empathizing with, or helping them or their partner understand cancer. Participants reported trusting African American physicians because they could relate to what their patients were going through.

Experience of discrimination. African Americans’ mistrust of traditional health care systems has been reported to originate from the Tuskegee experiment (Gamble, 1997). The literature also reports that African Americans often mistrust the health care system because of past experiences of discrimination, which can be attributed to unmeasurable socioeconomic variables, and unconscious biases on the part of health care providers, especially physicians (Cahan & Rowe, 2004; Kennedy et al., 2007). Impaired physician-patient communications, and a lack of cultural competence and sensitivity on the part of the health care provider are major contributing factors in African Americans’ mistrust (Petersen, 2002).

Devalued by white society. Historically, African Americans believed their lives were devalued by white society. This belief stemmed from being treated differently in the health care system due to their race, and it influenced their relationship with medical professionals (Gamble, 1997). Such a perception may influence minority patients’ trust of the healthcare system. Feeling devalued or ignored, African American patients may delay seeking medical advice or treatment, or display reluctance to practice healthy lifestyle interventions.

Social Support

Social support is the fourth mediator variable in the proposed model. Social support is the amount of psychosocial assistance a person perceives is readily available from people with whom he/she has regular contact with such as family, friends, colleagues, spiritual advisers, etc. (Cohen & Wills, 1985; Folkman & Lazarus, 1985). Social support buffers stressful events. High levels of social support generally are associated with positive health outcomes and protect individuals from the negative effects of stress (Cohen & Wills, 1985; Folkman & Lazarus, 1985). Research provides growing evidence that social environment and cancer progression are related (Hislop, Waxler, Goldman, Elwood, et al., 1987). Maunsell, Jacques and Deschenes (1995) conclude that social support in the form of marriage, frequent daily contact with others, and the presence of a confidant may exert protective against progression of such diseases as cancer. Kennedy and Woods (2004) suggest that African Americans may find a strong source of social support in their expressions of spirituality. Conversely, African American women often experience a lack of social support in their marriages and relationships with significant others.

Coping

Coping is the fifth mediator variable in the proposed model. Coping is defined as those abilities enabling an individual to buffer negative effects of stress or psychosocial vulnerability (Folkman & Lazarus, 1985; Lazarus & Delongis, 1983). General coping responses refer to strategies that are usually used to deal with stressful events. Coping mechanisms operate by either eliminating the source of the stress (e.g., solving a problem), or decreasing the unpleasant effect of stress (e.g., talking about feelings with a friend after the death of a loved one) (Folkman & Lazarus, 1985).

Pernicious stressor. African Americans face more hardships than the majority race (Kennedy et al., 2007). Unlike members of the majority race, African Americans are routinely exposed to racial discrimination, a pernicious psychosocial stressor, which erodes their economic security and psychological well-being (James, 1994). James proposed that African Americans are routinely exposed to psychosocial stressors (e.g., chronic financial strain, job insecurity) related to race and social class. These stressors require African Americans to use considerable energy each day to manage the psychological stress generated by them. African Americans will respond to these noxious conditions with high-eff-
fort coping.

**Psychological responses.** Perceptions of racism may produce such psychological responses as anger, anxiety, depression, distrust, helplessness, hopelessness, fears, frustration, paranoia, and resentment (Clark et al., 1999; Stuart & Laraia, 2001). These psychological responses influence coping skills in African American and other minority groups. Experiencing adversity may inhibit or disable coping, but with sufficient number and nature of social supports available, adversity may activate and enhance coping abilities.

**Dependent Variables**

Two dependent variables appear in the psychosocial model of racism. These variables are a) adherence/compliance to treatment and b) health outcomes. Adherence/compliance to medical treatment among African American patients affects their health outcomes.

**Adherence/Compliance**

Self-efficacy is the perception or judgment of one’s ability to perform certain actions successfully or control one’s circumstance. The construct of perceived self-efficacy reflects an optimistic belief that one can perform a new or difficult task (e.g., adhere/comply with treatment), or cope with adversity (e.g., racism, cancer diagnosis) in various domains of human experience (Schwarzer & Jerusalem, 1995). Perceived self-efficacy facilitates goal setting, effort investment, persistence despite barriers, and recovery from setbacks (Schwarzer & Jerusalem, 1995). The author proposes that people with high self-efficacy will adhere/comply with health care regimens and those with low self-efficacy will not adhere/comply.

**Health Outcomes**

African Americans’ access to health care, health care utilization and adherence/compliance influence their prognosis and health outcomes (Kennedy et al., 2007; Martin, Pearson, Green, Crowthen, & Lee, 2006). Because racism may contribute to adherence/compliance of African Americans (Kennedy et al., 2007), more studies are needed to explore psychosocial factors of racism related to African Americans’ adherence/compliance to traditional treatments, which improve cancer outcomes. Permanent lifestyle changes have been shown to improve health outcomes of clients with cancer (Fobair et al., 2002; Giese-Davis et al., 2002; Kissane et al., 2003; Spiegel et al., 1989; Vos et al., 2004).

**Assumptions of Model**

Four assumptions undergird the psychosocial model of racism as a predictor for adherence and compliance to treatment and health outcomes among African Americans. These are:

1. Psychological and physiological responses to repeated exposure to racism over time may be related to health problems, even if not perceived on a conscious level.
2. Mistrust of the health care system may be the result of an underlying cause associated with their previous experiences (e.g., Tuskegee syphilis experience; being treated different from the majority race group; poorer quality of care).
3. African Americans may unconsciously or subconsciously not seek health care or adhere/comply to recommended treatment (e.g., visits, medications, tests; procedures, etc.) on a consistent basis.
4. African Americans may inadequately cope with a health problem or deny it exists, because these health practice behaviors or beliefs (e.g., noncompliance, lack of practicing healthy lifestyle interventions) have been adopted from their ancestors and passed down from generation to generation.

In a study of 35 young adult African American women on the metabolic syndrome, Kennedy and Arnold (2004) found that participants complied with health care appointments, but inconsistently practiced healthy lifestyle interventions to reduce their disease risk, due in part to their value system, cultural practices, and ways of coping. The researchers concluded that generations of minority groups may not identify health disparities as a psychosocial effect of racism. Although these participants did not understand racism as their parents had experienced it, the socialization process of living with relatives who have experienced overt racism and mistrust the health care system may influence the next generation’s health practices.

**Implications for Research**

Based on the psychosocial model of racism, eight research hypotheses will guide future studies of African Americans and cancer. These include:

- **H1** Sociodemographic variables (e.g., age, sex race, SES, marital status, education) predict adherence/compliance to treatment and health outcomes among African Americans.
- **H2** Environmental factors (e.g., living in areas with substandard housing, health hazards, lack of skilled labor and managerial jobs; low paying wages; unemployment; violence, drug-infested communities; limited access to health care, etc.) predict adherence/compliance to treatment and health outcomes among African Americans.
- **H3** Racism factors (e.g., perceived racism, communications with health care providers, denied quality or advance treatments, etc.) predict adherence/compliance to treatment and health outcomes among African Americans.
- **H4** Cultural factors (e.g., spirituality, health practices, beliefs about health, etc.) predict adherence/compliance to treatment and health outcomes among African Americans.
- **H5** Sociodemographic factors (e.g., age, sex, race, SES, marital status, education) influence levels of stress, depression, trust, social support and coping skills, predicting adherence/compliance to treatment and health outcomes among African Americans.
- **H6** Environmental factors (e.g., living in areas with substandard housing, health hazards, lack of skilled labor and managerial jobs; low paying wages; unemployment; violence and drug-infested communities; limited access to health care) influence levels of stress, depression, trust, social support and coping skills, predicting adherence/compliance to treatment and health outcomes among African Americans.
- **H7** Racism factors (e.g., perceived racism, communications with health care providers, denied quality or advance treatments) influence the levels of stress, depression, trust, social support and coping skills, predicting adherence/compliance to treatment and health outcomes among African Americans.
- **H8** Cultural factors (e.g., spirituality, health practices, beliefs about health) influence the levels of stress, depression, trust, social support and coping skills predicting adherence/compliance to treatment and health outcomes among African Americans.

**Conclusion**

The author proposed a model demonstrating that psychosocial sequelae of racism have a major influence on health outcomes, especially in minority groups. Minority groups lack access to care, receive poorer quality of care, and have problems with adherence/compliance to treatment related to racism in the U.S. Few research studies have reported significant impact on disease progression and health outcomes with psychosocial interventions (e.g., supportive patient navigators, support groups, and/or buddy system, grief counseling). Prior to studying the affects of psychosocial
interventions with cancer patients, it is important to determine if stress factors (e.g., sociodemographic, environmental, cultural, racism) and mediator variables (e.g., stress, depression, trust, social support, and coping skills) may predict adherence/compliance to treatment and health outcomes in African Americans and other minority groups.

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Abstract: Each year, international students uproot themselves from their home countries, families, friends and other key people within their social support networks to pursue study at universities around the globe. Most international students assimilate and acculturate in the “host” culture successfully. However, some international students are challenged and distressed by cultural differences, social isolation, academic differences, and difficulties with English language proficiency. Through grounded theory method, analyses revealed how international students survived the human costs of transition shock during their sojourn and thrived while negotiating changes in physical environment, and cultural, academic, and social differences.

Key words: International students, grounded theory, higher education, well-being, culture, transition shock

A Grounded Theory of International Student Well-being

Globalization and continued demand for a premium education have expanded the numbers of students pursuing higher education abroad. For over half a century, more international students have studied in the U.S. than any other host country destination (Institute of International Education, 2008). In the 2007-2008 academic year, 623,805 international students studied in the U.S., an increase of 7% from the high of 586,323 in the 2002-2003 academic year (Open Doors, 2008). The numbers of international students originating from India, China, and South Korea, countries with the highest numbers of students studying in the U.S., have increased by 13%, 20%, and 11% respectively (Open Doors, 2008). International students bring cultural enrichment to university classrooms and promote global understanding in colleges and universities they attend (Chapdelaine & Alexitch, 2004). International students also contribute over $15.5 billion to the U.S. economy in tuition and expenditures for living expenses (Open Doors, 2008).

Facilitating a more positive adjustment and educational experience for international students is a growing interest and concern in higher education (Shigaki & Smith, 1997; Tseng & Newton, 2002; Olivas & Li, 2006). Similar to domestic students, international students are at risk for developing mental health problems associated with the student role, but their risk increases due to cultural isolation. For instance, international students are at risk for developing mental health problems associated with the student role, but their risk increases due to cultural isolation (Mishima & Higuchi, 2000). International students use to manage change during their sojourn and thrive while negotiating changes in physical environment, and cultural, academic, and social differences.

Literature Review

As international students enter U.S. collegiate life, they confront a life transition and cultural differences that can be overwhelming (Zhai, 2002; Olivas & Li, 2006). They face challenges including adjustment to a different education system and host culture. Researchers commonly use the term “culture shock” to describe what happens when an individual encounters a culture different from their own. Oberg (1960) defined “culture shock” as the “anxiety that results from losing all of our familiar signs and symbols of social intercourse” (p. 177).

Transition Shock

Bennett (1998) posits that culture shock “is in itself only a subcategory of transition experiences” (p. 216), and she argues that using the term to describe transitions yields “the tendency to treat it as an exotic ailment with origins rooted in faraway places” (p. 215). In reality, the transition is much like what people experience in their everyday lives when confronted by change. Instead of culture shock, Bennett (1998) uses the term “transition shock” to describe the transition of encountering a different culture as a result of moving to a different country or to a different region within the same country. She defines transition shock as “a state of loss and disorientation precipitated by a change in one’s familiar environment that requires adjustment” (p. 216). For purposes of the article, the authors use the term “cultural differences” instead of culture shock and transition shock when referring to the transition of international students.

Social Isolation

Social isolation for international students may stem from varied sources, which include being raised and educated in a home country where “collectivism” rather than “individualism” is the norm (Zhai 2002); perceived and actual racial discrimination (Lee & Rice, 2007); lack of English language proficiency (Zhai, 2002; Haydon, 2003), and confrontation with cultural differences when international students do not understand host culture norms and social rules (Chapdelaine & Alexitch, 2004). In Thorstenson’s (2001) research, international students from Asia expressed the need for more preparation for academic and social environments before and during their studies. Carr et al. (2003) designed a support group for female Asian international students.
Yeh and Inose (2003) concluded there is a need for counselors to establish programs that “build community and connections” for the international student population (p. 26).

**English Language Proficiency**

Problems with English language proficiency can significantly affect international students’ ability to succeed in academics, to communicate effectively with faculty and classmates, and to establish friendships with American students (Zhai, 2002; Haydon, 2003; Trice, 2003). International students who are not confident and proficient in speaking English are at a severe disadvantage in their adjustment. Two innovative programs at universities have shown some success in assisting international students in their transition: a) “conversation partners” pairs international students with faculty, staff or students to improve English language proficiency and to assist with cultural adjustment (Zhai, 2002), and b) a cultural sharing model pairs international students with American students as buddies (Shigaki & Smith, 1997). Researchers suggest that international students who interact with American hosts may experience less culture shock because they are coached about cultural rules and social skills acceptable to the host country (Shigaki & Smith, 1997; Chapdelaine & Alexitch, 2004).

**Use of University Services**

Transition shock may influence academic achievement and significantly affect overall success and well-being, especially mental health. Because international students prefer to obtain advice about personal issues from family, partners, and friends (Baloglu, 2000; Zhai, 2002; Ang & Liampittong, 2008), they seldom use university services, especially personal counseling. Another factor influencing whether international students pursue personal counseling originates from their country of origin and culture. International students from some cultures, particularly non-Western cultures, may be unfamiliar with counseling as an option because counseling may not have been available to them or practiced in their culture (Sandhu & Asrabadi, 1991; Mori, 2000). Some researchers suggest that universities develop approaches to provide counseling services to international students in informal settings and in non-traditional ways, such as presentations and group settings (Pedersen, 1991; Yeh & Inose, 2003).

**Purpose of this Study**

Through grounded theory methods, the investigator sought to explore the experiences of international students and the process they used to survive and thrive during their sojourn of studying and living in the U.S. This study demonstrates the value of using qualitative interviewing in grounded theory methodology to discover new theory or build upon existing theory (Glaser & Strauss, 1967; Strauss & Corbin, 1990) about international students’ experience.

**Setting and Sample**

The study was conducted at a private university in the southwestern U.S. Specific description of the university is deliberately omitted in order to protect participants’ privacy and confidentiality. Forty international students volunteered to participate in the study and the principal investigator (PI) interviewed 20 of them, ten female and ten male students. Participants originated from four continents – Africa, Asia, Europe, and South America which represented the international student population at the university. Participants reported their birth country/country of origin as Bangladesh, Bulgaria, Chile, China, Colombia, Ecuador, Hong Kong, India, Kenya, Pakistan, Peru, Qatar, South Korea, Tibet, United Kingdom, and Vietnam. The participants reported fluency in 1-4 languages.

Twelve participants were studying at the undergraduate level and 8 were graduate students, 7 of whom were enrolled in master’s degree programs and one of whom was pursuing a doctoral degree. The students exhibited diverse academic interests, with majors in Biology, Business, Chemistry, Early Childhood Educa-

**Procedure**

Prior to the beginning of the study, the PI submitted a protocol proposal for the study and informed consent form to the university’s Institutional Review Board (IRB). After expedited approval of the project from the IRB, the PI received permission to conduct the study from the director of international student services at the university. The PI emailed a letter explaining the purpose of the study and details of what participation in the study would entail to all international students, and forty international students responded by email to the PI directly expressing their interest to participate in the study. The PI obtained written informed consent from twenty international students to participate in the study. Participants received a $20.00 gift card to a local restaurant at the end of the interview as an incentive and token of appreciation. Participation in the study was voluntary, and participants could terminate their participation at any time. If a student became upset or distressed during the interviews, the PI planned to refer the student to university health services. No participants were referred to university health services.

The PI interviewed twenty international students individually. Interviews were audio-recorded and lasted 60-90 minutes. Some parts of the interviews were unstructured and conversational especially when the PI asked participants to describe their experiences of living and studying in the U.S., while other parts of the interview were semi-structured when the PI and participants discussed context and examples of experiences. Charmaz (2003) describes the complexities of qualitative interviewing in grounded theory:

*A grounded theory interview can be viewed as an unfolding story. It is emergent although studied and shaped. It is open-ended but formed and focused. It is intense in context yet informal in execution – conversational in style but not casual in meaning. This unfolding story arises as interviewer and participant together explore the topic and imprint a face on it. (p. 326)*

Interviews were transcribed by experienced transcriptionists and checked for accuracy by the PI. The PI assigned each participant a code number and identified interview transcripts by code number only. An undergraduate nursing student served as a research assistant to the PI and the research team worked on data analysis. Participants remained anonymous to the transcriptionists and research assistant.

**Data Collection and Analysis**

Consistent with using grounded theory or constant comparative method (Glaser & Strauss, 1967), data analysis began concurrently with data collection. The research team coded the transcripts for context, people, meaning, and process, noting themes, patterns, differences, and exceptions. As codes and themes were identified, the research team compared and contrasted new data to data collected previously and this analysis of emerging themes, patterns and relationships between categories provided the grounding to build theory (Strauss & Corbin, 1990) about the international student experience. The PI created an audit trail consisting of raw data from audio-recorded interviews, computer and hard copies of transcribed interviews, copies of coded transcripts, and a research journal to document evidence which led to conceptual development of the study. Inter-rater checks of analysis were performed by two researchers who were experienced in qualitative research, but not directly involved in the study. These researchers verified themes and interpretations.
FINDINGS AND INTERPRETATIONS

During the interviews, participants expressed appreciation at having the opportunity to tell their stories, remarking this was the first time anyone had asked them to talk about their experience. For many participants, the interview was “cathartic” and became “a significant event for them,” illustrating that “Interviews may yield more than data for a study” (Charmaz, 2003, p. 326). Six themes emerged from the data consistent with grounded theory analysis (Strauss & Corbin, 1990; Glaser & Strauss, 1967). These themes illustrate the human costs of transition shock and how participants managed transition shock during their sojourn. Interpretation of themes and verbatim excerpts from qualitative interviews follow.

Transition Shock: The Human Costs

As the international student participants entered the U.S., many changes were set in motion. Change overload in combination with feelings of homesickness, loneliness and isolation due to loss placed them at risk for adjustment issues and health problems.

Change Overload

“Human beings make sense of the world and their lives by following routines and taking familiar things for granted, but during an international move, there are no comforting routines.” Everything changes on once (Hess & Linderman, 2002, p. 155). Hess and Linderman (2002) refer to the changes experienced by individuals who relocate abroad as “change overload”. Change overload for participants in the study involved navigating within a new country and culture, experiencing weather and food differences, and negotiating academic and social differences.

Weather differences. All participants spoke about the weather differences they experienced in the host country, which caused them discomfort, particularly in the summer months. A student from Asia remarked: “I was so shocked like even just going outside I thought I would melt you know just to get there!” Another student described the weather as “heat like an oven” and described her experience of developing heat stroke shortly after her arrival to the U.S. Hospitalized, she recovered fully. In contrast, other students had positive comments about environmental conditions in the U.S. in comparison to conditions in their home countries. One participant remarked: “It’s so clean over here, like you don’t have pollution or dust or smoke.”

Food differences. Participants spoke about their need to adjust to food differences in the U.S., especially large food portions common to American culture. Many participants reported developing a preference for certain American foods, like hamburgers and pizza. Some students reported weight gain, with one student gaining 40 pounds. A student remarked: “I got fat with the food. I gained a lot of weights... Pizza.” Many participants reported that they cooked foods from their culture for themselves while others reported eating an American diet predominantly. Participants also cooked foods from their cultures when experiencing homesickness.

Academic and social differences. Twelve participants (60%) were undergraduate students, which meant this was their first university experience. These participants experienced common stressors, such as academic, social, and financial pressures that domestic students from the host culture experience, but at a magnified level. Sixteen participants (80%) did not have the physical presence and close support of any family or friends from their cultures to assist them in their adjustment. Pressure to succeed in academics may be extremely high for any university student, but is especially so for international students, as underachievement and failure in some cultures brings disgust and shame to not only the international student but to the family in the home country (Hannassab & Tidwell, 2002).

Exemplar case. A male, undergraduate student spoke about his first semester at the university as he negotiated a different education system. He remarked that the academic workload was heavy and he had many assignments due in a short time period, which he said was not the norm in his home country where teachers would have allotted more time. He reported eating one meal a day and sleeping four hours per night on a good day.

And during my little dilemma in the beginning [first semester] when I got a little frustrated, a little bogged down [with academic workload], I went to my student advisor, and I confided in him because I mean... my whole appearance was noticeable. My dorm mates would notice and inquire what was wrong. I was this close to breaking down. And you know to be honest for an __________ [a person from my culture] to say that... it’s really, it’s a pretty big deal because we go through a lot of hardships, and we take it. But this was having both a physical and psychological toll. I actually did get sick. Probably lack of food and lack of rest. For international students, work becomes primary; health and family become secondary.

Homesick, Lonely and Isolated

Nineteen participants (95%) reported some degree of homesickness and loneliness when they first entered the U.S., and most students experienced intense homesickness at times. A male, undergraduate student described homesickness as a “wound”:

There’s nothing you can do other than let time heal you. I tried a lot of things, and it’s just time that heals the wound of homesickness. And sometimes I would really, really feel bad, and the only thing that kept me here was thinking about why I was here. I come from a middle class family [in my country] and this was our opportunity of coming up in social status, and I had to. I didn’t have any other choice, and that’s what kept me here.

Distressed by loneliness. Many students spoke of their discomfort of feeling lonely and their need to adjust to being alone, which for some was a significant change. Participants from some cultures verbalized that they had never experienced being alone because their households included their extended families. One female student explained: “because I grew up in an extended family...8-10 people in my home, so I came here and felt so lonely, I was like...my God, this is so lonely.” Another female student stated: “I’m alone in this country and I’ve got no one but you, God.” Participants maintained contact with family and friends in their home countries by email, telephone, and webcam. One participant subscribed to a radio program via the internet to be able to discuss current events with her parents.

Pressured to perform. Feelings of loneliness intensified because of academic and financial pressures. All participants reported a struggle balancing their academic and social lives. Fifteen students (75%) were recipients of university scholarships, which meant they had to achieve a specific Grade Point Average (GPA) level to maintain their scholarships. They reported extreme pressure to perform academically in addition to navigating the academic differences they experienced. During a critical time when students most needed to make social connections, the pressure to perform academically decreased their interactions with others and increased their feelings of isolation and loneliness.

Isolated by language. Several participants could barely speak English when they arrived. Language barriers were a major challenge as they attempted to negotiate academic, cultural, and social differences. A male, graduate student spoke about the language barriers he experienced his first semester at university:

It was really, really hard, especially the English. The writing is a problem; so when I took the class, I couldn't understand 70-80 percent...I couldn't understand, even though I had studied [English] when I was in [my country]. The language was a problem. But, at that time I couldn't do that well so...
A female, undergraduate student spoke about difficulties her friend who was an international student had due to language: “She could not get very good grades in class so she gave up. Some go back to [my country], some don’t attend classes, and some transferred to other schools.” While English proficiency might mitigate academic challenges, Brown (2008) observed a “lack of fit between their [international student’s] level of English and the academic demands placed on them” (p. 23).

**Emotional Consequences**

Temporary, mild depression is a common phenomenon after relocation abroad. This depression may manifest itself as sadness and self-doubt from homesickness and feelings of insecurity (Hess & Linderman, 2002). Some international students develop depression which requires treatment. A female, undergraduate student spoke about obtaining assistance for depression at the university’s counseling center: “I got very depressed last semester [second semester at university]. I had to help myself. No one would help me. My friends stopped calling me and my parents thought I didn’t want to study. I went to [student life department] and got help.” She concluded the interview stating she was “doing better now in grades and personal life.”

**Overwhelmed by high expectations**

A male, undergraduate student who transferred from a community college to the university reported that his first semester at the university was “horrible”. He stated: “My grades were so low…then I ended up in [my American friend] took us to an Indian restaurant. She says [sic] that I might not have had Indian food in a long time. I really appreciate that and she was so much fun…this is the best day I ever had in the U.S.” Some participants reported they have American boyfriends or girlfriends. A female participant spoke of a positive relationship with an American student friend at the university: “Yes, we went shopping and she [my American friend] took us to an Indian restaurant. She says [sic] that I might not have had Indian food in a long time. I really appreciate that and she was so much fun…this is the best day I ever had in the U.S.” Some participants reported they were invited to spend Thanksgiving Holiday with the families of their American student friends. They described this experience as an opportunity to experience values and traditions of another culture while making social and emotional connections. A female participant who lived off campus noted this experience provided her with adult resources (her friends’ parents) if needed, which increased her feelings of security.

**Developing Confidence, Independence, and Openness**

All of the students remarked that their independence and confidence increased as they established social and emotional connections. A female participant who was an international student had due to language: “She could not get very good grades in class so she gave up. Some go back to [my country], some don’t attend classes, and some transferred to other schools.” While English proficiency might mitigate academic challenges, Brown (2008) observed a “lack of fit between their [international student’s] level of English and the academic demands placed on them” (p. 23).

**Faculty mentors.** Nineteen students (95%) described relationships with their professors positively. Several participants identified their professors as playing major roles in their support systems. One male, undergraduate student explained: “I have 4 or 5 people picked out that if I have a problem, I just either go to one if I have a specific [problem], or if I’m confused about anything I go to all and take some time.” He remarked that many of his mentors are professors at the university.

**Fast friends.** Personality type influenced how quickly students were able to establish friendships. Several students described themselves as being introverted while others described themselves as outgoing and reported making friendships quickly. Although participants recognized the need to seek friendships with American students to acculturate, they described friendships in their cultures as developing sooner and more spontaneously. They remarked they had more international student friends and friends from their home countries. These friendships were established immediately through participation in a university-sponsored orientation for international students.

**American friends.** Seventeen participants (85%) found that establishing friendships with American students was a slow and, at times, a frustrating process. Participants reported having some American student friends, but wished they had more interaction with American students, which confirmed previous research findings (Poyrazli & Grahame, 2007). Three participants (15%) reported they have American boyfriends or girlfriends. A female participant spoke of a positive relationship with an American student friend at the university: “Yes, we went shopping and she [my American friend] took us to an Indian restaurant. She says [sic] that I might not have had Indian food in a long time. I really appreciate that and she was so much fun…this is the best day I ever had in the U.S.” Some participants reported they were invited to spend Thanksgiving Holiday with the families of their American student friends. They described this experience as an opportunity to experience values and traditions of another culture while making social and emotional connections. A female participant who lived off campus noted this experience provided her with adult resources (her friends’ parents) if needed, which increased her feelings of security.

Another male student commented that the university needs to find “a way to oversee how international students are doing. Are they in class? If they don’t go for help, no one knows.”

**Transition Shock Management: Surviving and Thriving**

Survival strategies international students used to manage transition shock included establishing a social support network to substitute for the loss of their families and friends. As students progressed in the adjustment process, they developed varying degrees of confidence and independence to manage their lives, and openness to the host culture.
confidence levels had increased significantly due to their experiences of living in the U.S. and studying at an American university. One female, undergraduate student stated: “By being here, I think I can handle being alone. Getting out of my little hole back home and having to do things for myself all of the time, definitely made me a more capable person. Now I can manage my own things. It makes you stronger, you don’t have that crutch to lean on.” Another student remarked: “I learned to be independent. [In my country], there’s only one child in every family. I’m the center of the family so everyone takes care of me. But now I’m alone in America so I have handle all the things myself...make decisions by myself.” Participants reported engaging in a variety of activities to deal with being alone that included the following: Drawing, painting, reading newspapers, exercising at the recreation center, singing in a church choir, and watching movies. A male, undergraduate student spoke confidently about his ability to solve problems and perhaps a new goal of pursuing graduate school: “I learned more, I learned to deal with problems more, now I can think critically and apply them to everything I do, and through that I can learn more and more for the future, grad school maybe.” A female, graduate student commented:

I’m so glad I came here! You know when you start a new thing, the beginning, that’s very difficult. But later on you’re going to be proud of yourself. Ok, I’m doing this. Good. You take this challenge and you see new things. You experience new things and you can feel more confident dealing with some situations, so I’m so glad I’m doing this.

Participants spoke about their adjustment to American culture, explaining that, over time, they gradually became more open to cultural differences in the host country. A male student spoke about ways he dealt with adjusting to American culture:

The culture over here, it’s quite different from my culture over there, so I had to come up with a whole new way of thinking and abandon, well not abandon, just really decide and try to double up new strategies, new ways of thinking about, and that’s how I started actually thinking through my perspective of my own culture. I’ve learned new ways of thinking and it’s helped me out here, even if I go back to [my country], I don’t know how much I can apply from what I’ve learned here, but it definitely made me more open, more accepting of other things, and I wasn’t before.

Another female student remarked: “I think there is so much to learn here [U.S.]. I mean the good things from every culture...you can get them. So just be open, be patient. It'll get better.”

Using University Services

During the interviews, participants spoke about university services they used and frequently mentioned the library and recreation center. Most students had visited university health services for minor health complaints (e.g., cough, headache, hair loss) and reported satisfaction with the care they received and the convenience of walk-in service. Several students visited the student life department and the counseling center for assistance. Other students were unaware of the university's counseling services, which is consistent with past research findings (Poyrazli & Grahame, 2007; Ang & Liamputtong, 2008). One student spoke about counseling in her culture:

You know like here [U.S.] everyone...if they have some type of problem they go and talk to a counselor, but there [in my country] there’s always someone in the home because of the extended family, so they always have someone, like you can talk to your mom or your sister or your grandma, or you have your aunt in your home. You have so many people around that you don’t really need to go to someone that doesn’t know you. So, there’s always someone who knows you better...you don’t have to look for someone else outside of the family; most of the time, I’m not saying all of the time...sometimes the problems are so bad that you have to go to the counselor, there’s no other option.

Students also used career services and the center for writing development. Many students mentioned the international student services office as a place they went to obtain assistance. All participants spoke about the value of the international student orientation held at the beginning of the academic year for information to ease adjustment. All of the students were aware of several organizations for international students at the university; however, many students stated they did not have time to participate due to academic workload. A student remarked that she felt the university “should host some activities so international students have the chance to make more American friends.” Another student suggested that he would have liked more preparation before his arrival at the university, such as being paired with another student from his home country.

Study Limitations

Limitations of the study included a small, non-representative sample and time constraints. Data were not saturated due to the cohort size (N = 20), and participants were interviewed only once due to the grant’s timeframe. Interviewing participants more than once over their first two years at university may have yielded additional valuable data about the transition process as it was occurring. Although the sample of participants in this study reflected the population of international students at the university where the study took place, the sample may not be representative of international student populations on other U.S. campuses.

Implications for Practice

Based on the findings of this study, early assessment of international student health and outreach is needed, especially during the first 6-12 months of living in the U.S. There is also a need for further research to explore nontraditional approaches to offering university services, particularly mental health services to international students. Mental health counseling may not be available or socially acceptable in the cultures of some international students, so consequently students may not seek assistance when they are in need. Offering assistance in nontraditional ways in group settings could also benefit students. For example, informal workshops that provide ways for students to obtain skills and learn strategies to deal with change, homesickness, and loneliness may assist international students in their transition. University sponsored organizations and activities that facilitate social connections with American students are critical to international student adjustment. Lastly, universities could pair new international students with other international students from their home countries already established at the university to mentor the newly arrived students.

Conclusion

The international students in this study came to the U.S. in search of higher education to meet career goals and a different life experience, which they hoped would fulfill their aspirations and dreams. The majority of students found their first 6-12 months at university and living in the U.S. very challenging as they navigated and negotiated academic, cultural, and social differences. Four participants (20%) reported serious health problems during their first six to twelve months of living in the U.S. Despite these challenges, they demonstrated resilience, remained goal oriented and persevered. Nineteen participants (95%) reported increasing comfort and competence in academic, cultural, and social aspects of their lives after 6-12 months of living in the U.S. Many participants spoke of setting new goals, some of which involved continuing their education. All participants expressed no regrets about their decision to live and study in the U.S.
Authors’ Note: This research raises important questions: What is the attrition rate of international students in American universities and how can universities work with international students to increase their well-being and chances for success?

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Debra A. McLachlan, PhD, RN is an Assistant Professor of Nursing in the Harris College of Nursing & Health Sciences at Texas Christian University. The authors also wish to thank the international students who participated in the study wherever they may be.
Abstract: The purpose of this study was to determine effects of the Health Belief Model (HBM) variables on cardiac rehabilitation initiation. Myocardial infarction or coronary artery bypass graft surgery inpatients completed questionnaires of demographic information, perceived severity of cardiac disease, perceived susceptibility to another cardiac event, perceived cardiac threat, depression, and social support. Left ventricular ejection fraction and comorbid conditions were obtained. Results revealed that perceived severity, susceptibility, and threat were moderately correlated, but these variables did not predict cardiac rehabilitation initiation. Absence of effect may be due to inadequacies in measurement, or it may mean the HBM is not useful for this population. Other models may need to be explored.

Key words: Cardiac rehabilitation, Health Belief Model, perceived severity, perceived susceptibility, perceived threat

Usefulness of the Health Belief Model in Predicting Cardiac Rehabilitation Initiation

Cardiac rehabilitation (CR) programs began in the 1960s when telemetry monitoring was not yet available. Little information was known about risk factors and risk reduction, but CR programs were implemented with the goal of decreasing mortality and increasing collateral circulation by focusing on exercise (American Association of Cardiovascular & Pulmonary Rehabilitation, 1999). CR programs currently include patients with myocardial infarction, coronary artery bypass graft surgery, percutaneous transluminal coronary angioplasty, residual myocardial ischemia, heart failure, and arrhythmias. Many patients have pacemakers, cardioverter defibrillators, valve surgeries, and heart transplants. Outpatient CR can begin as early as one to two weeks after discharge from the hospital. The focus is on increasing exercise capacity and habits, and reducing risk for another cardiac event (American Association of Cardiovascular & Pulmonary Rehabilitation, 2004; Wenger et al., 1995).

Cardiac Rehabilitation Benefits

CR programs have proved beneficial in the recovery of patients with cardiac disease. In her article entitled Current Status of Cardiac Rehabilitation, Wenger (2008) provided an excellent summary of many studies showing evidence of CR benefits in reducing morbidity and mortality. A recent study examined the benefits of increased functional capacity, improved quality of life, and increased survival for heart failure patients who attend CR programs (Boudreau & Genovese, 2007). Medicare and many private insurance companies do not pay for CR for heart failure patients unless they have another reimbursable diagnosis such as a myocardial infarction. Demonstration of the CR benefits for heart failure patients will provide evidence needed for insurance companies to consider reimbursement for this patient population.

Initiating Cardiac Rehabilitation

Even though the benefits of CR are no longer questioned, rates of CR utilization remain low. In a study of Medicare patients, Suaya and colleagues (2007) found that only 13.9% of myocardial infarction patients and 31.0% of coronary artery bypass patients started a CR program. Because utilization is still a problem, factors determining the likelihood of a patient starting a CR program need continued examination in order to plan interventions that increase initiation. The Health Belief Model (HBM) (Rosenstock, 1974a) was examined in this study to provide insight regarding some factors that may influence CR initiation.

Conceptual Framework

The HBM, which was developed in the early 1970s, has been used extensively in research addressing factors associated with performance of health behaviors (Maiman & Becker, 1974; Rosenstock, 1974a). The key elements of this model include individual perceptions or beliefs influencing whether or not a health action will be taken to avoid or prevent a disease or illness.

Major Propositions

The HBM proposes that an individual needs to believe the disease is severe enough to affect some aspect of his or her life. The individual may see the seriousness of a disease in terms of the health consequences such as disability or death, or may perceive the seriousness in terms of its implications on other aspects of his or her life, such as job or family. The perception of disease severity may vary widely among individuals. The person also needs to believe that he or she is susceptible to a disease. Individuals vary considerably with respect to how susceptible they believe they are to a disease or condition.

The likelihood of taking a health action is also influenced by the perceived benefits of taking the action outweighing the barriers to taking the action. For example, in a group of cardiac patients, co-morbidity and disease severity can be barriers to beginning CR because other illnesses and hospitalizations can interfere with rehabilitation and outweigh the health benefits perceived from exercise.

Modifying factors affect the relationship between these perceptions and a person’s likelihood to take action. A cue to action is an important modifying factor triggering the health behavior, but it is difficult to measure. Cues can be things such as bodily symptoms, media attention, illness of another person, a postcard reminder of an appointment, or advice from others (Rosenstock, 1974a). Other modifying factors are demographic variables, such as age, race, gender, and socioeconomic status; sociopsychological variables, such as social support, depression, and anxiety; and structural variables, such as knowledge about the disease and prior experiences with the disease. (Rosenstock, 1974a). Perceived threat
is also identified as a modifying factor included in the HBM (Maiman & Becker, 1974), but it has received little attention.

**Prior Research**

Prior research concerning the HBM demonstrates that patient perceptions of severity and susceptibility are positively related to various health behaviors, including compliance with anti-hypertensive medications and smoking cessation (Janz, 1988; Janz & Becker, 1984). However, the effects of perceived severity and perceived susceptibility on initiation of or adherence to CR have not been consistent in the literature (Ades, Waldmann, McCann, & Weaver, 1992; Oldridge & Streiner, 1990; Al-Ali & Haddad, 2004). Perceived threat of harm or loss related to cardiac disease (Bennett, 1992; Thompson, Webster, Cordle, & Sutton, 1987) is another patient perception that may influence CR initiation, but it has received little attention in the literature.

A lack of more recent research on the HBM variables with the CR population might lead one to believe that HBM variables are not useful when CR is the health behavior being examined. Janz and Becker (1984) found that perceived susceptibility explained preventive health behaviors more than it explained sick role behaviors, while the opposite was true for perceived benefits. Although perceived severity was more strongly associated with sick role behaviors, it was the least important variable overall. CR is considered both a preventive and sick role behavior. Patients usually participate in rehabilitation because they have of some type of cardiac disease, yet they are also trying to prevent a future cardiac event.

**Purpose**

The purpose of this study is to determine the effects of perceived severity of cardiac disease, perceived susceptibility to another cardiac event, and perceived threat of harm or loss on CR initiation. These relationships will be examined to assess usefulness of the HBM in planning interventions to increase CR initiation.

**Method**

**Study Setting and Sample**

This study took place at a 537 bed urban hospital in the Midwest. A convenience sample of 116 hospitalized adult patients (age > 21 years) who had a myocardial infarction (MI) or coronary artery bypass graft surgery (CABG) completed the initial questionnaire while recovering on the telemetry unit. Of these 116 patients, 97 were reached for a follow up phone call to see if they started CR. At the study hospital, CR nurses see all potential CR patients and contact the physician for an order. The 116 research participants had a mean age of 61.7 years (SD = 10.8), and averaged 13.3 years of education (SD = 2.8). Ten percent were diagnosed with MI only, 49% were diagnosed with CABG only, and the remaining 41% were diagnosed with both MI and CABG. A majority of the sample was male (64.7%), white (86.3%), and married (71.9%). Many participants were retired (40.5%), but almost half (46.6%) were employed.

**Independent Variables**

Perceived severity was measured using a subscale for perceived severity from the Health Beliefs Questionnaire (Mirotznik, Feldman, & Stein, 1995). Cronbach’s alpha for this study was only .55 with all 10 questions included. To improve reliability of the instrument, only questions one, two, four, and six were included in the total score for perceived severity increasing the alpha to .66. Perceived susceptibility was measured using eight questions from a Perceived Susceptibility Subscale of the Health Beliefs Questionnaire (Mirotznik et al., 1995). Cronbach’s alpha for this study was .69. Perceived threat was measured by the Cardiac Event Threat Questionnaire, which consists of 31 items (Bennett, Puntenney, Walker, & Ashley, 1996). In this study Cronbach’s alpha was .95.

**Covariates**

Demographic data, along with the following questionnaire data, were collected while patients were still in the hospital. Social support was measured using the Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet, & Farley, 1988). Depression was measured using the Beck Depression Inventory-II (Beck, Steer, & Brown, 1996). Comorbidity was measured using the Charlson Comorbidity Index (Charlson, Pompei, Ales, & MacKenzie, 1987). Disease severity was measured using the patient’s most recent left ventricular ejection fraction, obtained within the previous three months. Strength of the physician’s recommendation was measured using a scale similar to a visual analog scale developed by Ades, Waldman, Polk, and Goflesky (1992). A rating of 1 indicated “the physician did not recommend [CR] participation”, and 5 indicated “strong recommendation”. In this study, patients were questioned by telephone and asked how strongly their physician recommended participation in CR. Perceived benefits and barriers were measured using the Exercise Benefits/Barriers Scale (Sechrist, Walker, & Pender, 1987).

**Dependent Variable**

CR initiation was measured by patient self-report. Each patient received a telephone call four months after initial consent to ask about initiation. A patient was said to have initiated CR if he or she had attended at least four of the first six CR sessions.

**Results**

The relationships between perceived severity, perceived susceptibility, and perceived threat in patients eligible for CR were examined. Moderate associations were found between severity and perceived susceptibility (r = .27, p < .01), perceived severity and perceived threat (r = .35, p < .01), and perceived susceptibility and perceived threat (r = .35, p < .01). The relationships between perceived severity, perceived susceptibility, perceived threat and CR initiation were examined, but no significant associations were found.

The extent to which perceived severity, perceived susceptibility, and perceived threat predict CR initiation when controlling for demographic variables (age, gender, race, socioeconomic status, education), sociopsychological variables (social support, depression), physiologic variables (comorbidity, disease severity) strength of physician recommendation, and perceived benefits and barriers was examined using logistic regression. Results of the regression analysis indicated that perceived severity, perceived susceptibility, and cardiac threat did not predict CR initiation.

**Discussion**

A major finding of this study is that no relationships were found between HBM variables (perceived severity, perceived susceptibility, and perceived threat) and CR initiation. This was not surprising based on the inconsistent findings in previous research. Each of these variables will be discussed individually for their effects on CR initiation.

**Perceived Severity**

Perceived severity is the most frequently examined of the three HBM variables. Some studies of perceived severity and its ability to predict CR participation have shown results consistent with that proposed by the HBM (Ades, Waldmann, McCann, & Weaver, 1992; Mirotznik et al., 1995), which states that greater perceived severity leads to greater compliance with health behaviors (Janz, 1988; Janz & Becker, 1984).

One explanation for the difference between previous study findings and this study regarding the relationship between perceived severity and CR initiation is the different study samples. Participants in the Ades et al. study (1992) had a mean age of 70.4 years (range = 62 to 92 years), which is an older sample than
was used in the current study in which the mean age was 61.7 years. Possibly perceived severity plays a more important role in predicting CR in older individuals. A more likely explanation is the different measures of perceived severity used in the studies. Ades et al. (1992) measured perceived severity using the cardiac nurse’s assessment of the patient’s denial of illness severity. Patients were not asked directly about their perception of severity using a standardized instrument as done in the study reported here.

Mirotznik and colleagues (1995) found that higher perceived severity led to better CR attendance as measured by the number of exercise sessions attended. Their sample differed from the current study sample because less than half of their sample had an MI. In the current study, half the sample had an MI and half had a CABG. The majority of the Mirotznik et al. sample was referred to CR based on cardiovascular disease risk factors, but had not had a cardiac event. Thus, it is possible that participants in the study by Mirotznik and colleagues may have viewed exercise as a preventive behavior (prevent a cardiac event) rather than a sick-role behavior.

The HBM was originally developed to explain preventive health behaviors (Rosenstock, 1974b). Previous studies using the HBM have shown consistent results in the expected direction when the health behavior was preventive (Janz, 1988; Janz & Becker, 1984). Rosenstock reviewed seven early retrospective and prospective studies using the HBM in preventive health behavior research, six of which supported the HBM (Rosenstock, 1974b). If cardiac patients view CR as a sick role, the HBM may not be as useful. Also, the measure used to assess perceived severity may require revision to reflect the fact that patients have had a cardiac event. Questions such as “Please indicate the degree to which you think a heart condition would disrupt a person’s life” (Mirotznik et al., 1995) seem to be written to measure the perceived severity of a person trying to prevent heart disease, rather than to measure the perceived severity of a person who has already had a cardiac event.

In contrast to the studies of Ades and colleagues (1992) and Mirotznik et al. (1995), previous studies in which the findings indicated either no relationships or opposite relationships between perceived severity and CR participation had either small sample sizes, poor internal reliability of the perceived severity scale, or both. Hiatt, Hoenshell-Nelson, and Zimmerman (1990) found no relationship between perceived severity and CR participation; however, their sample size was small (N = 39), and their measure of perceived severity showed poor internal consistency. Tirrell and Hart (1980) found no relationship between perceived severity and exercise compliance, but they had a sample of only 30 CABG patients. Muench (1987) dropped perceived severity from her analysis of compliance in a CR program due to poor internal consistency of her measure. Oldridge and Streiner (1990) found a significant relationship between perceived severity and CR dropout, but the direction was opposite what was expected based on the HBM. Their sample consisted of 120 participants, but the reliability estimates of their instruments were not reported.

Al-Ali and Haddad used the Health Belief Questionnaire developed by Mirotznik et al. (1995) and found no significant relationship between perceived severity and exercise participation, which is consistent with findings of the current study. The internal reliability of the perceived severity scale in their study was .44, which was lower than the current study’s alpha of .66. Despite the small sample sizes and poor internal consistency of measures, the number of studies in which insignificant or inverse relationships were found might lead one to believe that the HBM is simply not useful for this population.

Perceived Susceptibility

Tirrell and Hart (1980) reported negative associations between perceived susceptibility and exercise compliance in CABG patients. Those who perceived themselves the most susceptible were the least compliant in their sample of CABG patients who had undergone surgery 10-12 months prior. Similar to the current study, other studies found no associations between perceived susceptibility and CR compliance (Muench, 1987; Oldridge & Steiner, 1990) or exercise participation (Al-Ali and Haddad, 2004). These inconsistent findings may be due to the unclear distinction of whether CR is perceived as a preventive health behavior or a sick-role behavior by cardiac patients. Recovering cardiac patients are experiencing a sick role while trying to prevent a future cardiac event; therefore, they may perceive CR as both types of behavior. Questions on the perceived susceptibility subscale by Mirotznik and colleagues (1995) were questions such as “How likely is it that someday in the future you will be ill with heart disease?” and “In comparison to most other people, how susceptible do you think you are to developing a serious heart condition?” Questions such as these may be confusing to a patient who just had a recent cardiac event.

Perceived Threat

The influence of perceived threat has not been included in previous studies of CR initiation. According to the HBM, perceived threat influences health behaviors (Janz, 1988; Janz & Becker, 1984; Rosenstock, 1974a). This proposition was not confirmed in this study. Threat related to physical exertion rather than structured exercise was measured using the Cardiac Threat Questionnaire (Bennett et al., 1996). For example, patients rated their level of concern on questions such as “doing jobs around the house” and “being asked to do heavy physical work at my job”. Questions related to their concern about exercising at home after discharge from the hospital were not asked, but such questions represent a component of perceived threat which may need to be included in future studies with MI and CABG patients. Because patients frequently verbalize their concerns or fear of physical exertion after a cardiac event, such fears may influence their decision to start a monitored CR program. It may be that higher levels of threat would lead cardiac patients to be more likely to enter a program because it is monitored.

Conclusions

It appears as though the HBM may not be useful to explain CR initiation in patients who already have cardiac disease. Internal reliability of the instruments has been poor in most studies, creating the potential for considerable measurement error. Results have been inconsistent in studies with populations similar to the current study. Few instruments have been developed to measure perceived severity and perceived susceptibility in the cardiac population. Researchers often developed their own instruments to assess these variables or used instruments without known reliability or validity (Ades, Waldmann, McCann, & Weaver, 1992; Hiatt et al., 1990; Muench, 1987). Others, such as Oldridge and Steiner (1990), Robertson and Keller (1992), and Tirrell and Hart (1980) used modifications of the Standardized Compliance Questionnaire developed by Sackett and Haynes (1976). The Standardized Compliance Questionnaire is old and no longer being used. The instrument used by Mirotznik et al. (1995) was useful for populations at risk for cardiac disease. It may be that measures of perceived severity and perceived susceptibility cannot be applied to patients with recent cardiac events with the same degree of reliability.

Perceived threat has not been examined in previous studies with cardiac patients and warrants further research. Patients who are threatened or fearful of exercise may be more likely to attend CR due to the supervised and monitored environment for exercise. Possibly a measure of perceived threat in this population needs to incorporate the threat of home (unmonitored) exercise. The power this study was low when perceived severity, perceived susceptibility, and perceived threat were entered into a logistic regression analysis without covariates. With insufficient power an effect of the independent (HBM) variables on the dependent variable (CR initiation) may have been missed. Despite the regression
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