ATTITUDES OF JORDANIAN NURSING STUDENTS TOWARDS MENTAL ILLNESS: THE EFFECT OF TEACHING AND CONTACT ON ATTITUDES CHANGE

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Purposes: Attitudes toward mental illness and patients with mental illness influence the treatment they receive and decisions of policy makers. The purposes of this study were to assess Jordanian nursing students’ attitudes towards mental illness, and to assess the effectiveness of teaching and contact on changing nursing students’ attitudes about mental illness.

Methods: A quasi-experimental, one group pretest-posttest design was employed to test the hypotheses. Opinion about Mental Illness (OMI) Questionnaire which composed of five subscales was used to test the research hypotheses. The sample consisted of 193 Jordanian nursing students studying at the Hashemite University.

Results: results showed that (1) nursing students were found to have positive attitudes towards mental illness in four scales, (2) no significant differences were found between students’ attitudes towards mental illness and demographics, (3) there was a significant difference in attitudes towards the mental illness between students who have previous contact with mental patients and those who did not, and (4) students’ attitudes towards mental illness were changed positively in all scales after taking the course.

Conclusions: Attitudes about mental illness will positively changed if we correct some myths about it by increasing students’ knowledge and by giving them the opportunity to contact those group of patients.

Attitudes developed early in childhood, later on in life, society especially through the media, continues to modify them (McGurine, 1985). Attitudes have two general important functions: they guide behavior towards various goals away from adverse outcomes, and they help people to efficiently process complex informa-
Attitudes towards mental illness influence the treatment they receive and decisions of policy makers (Atkinson, Atkinson, Smith, Bem & Nolen-Hoeksema, 2000). Attitudes towards mental illness and patients with mental illness have been found to influence the treatment given to those patients by personnel working with them. In addition, these attitudes influencing policymakers when deciding on integration into the community and patient’s rights (Levey & Howells, 1994; Horwitz, 1987). The negative attitudes attached to mental illness and the associated help-seeking process, is the major factor that is thought to contribute to the underutilization of mental health and mental health services.

In academia, Napolitano (1981) has indicated that five factors influenced attitudes about mental illness: classroom instruction, students' age, previous contact with mental patients, fear reduction process, and length of practicum in mental health. Negative attitudes towards individuals with mental illness may create barriers to both recovery and full integration of those patients into the community. Penn, Kommana, Mansfield, and Link (1999) identified what information on mental illness would reduce the feelings of being in danger by individuals with mental illness. The results showed that participants who were given information about schizophrenia and other mental illnesses rated these individuals as less dangerous.

Studies also have shown that there is a negative attitude associated with mental illness among personnel who work with them such as nurses and occupational therapists as well as among the general population (Levey & Howells, 1994; Socall & Holtgraves, 1992). Other studies have shown that attitudes towards mental illness were positively correlated with age and with those who have limited personal experiences with individuals with mental health disturbances. In addition, attitudes towards mental illness were negatively correlated with socio-economic status, and level of education (Brockington, Hall, Levings, & Murphy, 1993; Levey & Howells, 1994). Therefore, it is important that the population in general and nursing students in particular, who may work with this kind of patients in the future, to develop positive and realistic attitudes towards mental
Labeling patients with mental illness regardless of their behavior, resulted in public rejection (Socall and Holtgraves, 1992). More research on the attitude towards mental illness, specifically of those in mental health-related fields, is necessary to ensure the quality of care provided to people with mental illness.

Studies on student’s attitudes towards mental illness impacted curriculum development, work recruitment, and specialty choices in mental health-related fields. Werrbach and DePoy (1993) investigated the perceptions held by students about working with persons who have serious mental illness and the correlation between students’ future job satisfaction and the attributes of working in community mental health field. Students indicated significantly more comfort in advocating community services for psychiatric clients, but they were significantly less satisfied with the challenge of working with patients who did not easily show signs of improvement such as people who have mental illness. Group differences related to previous mental health experience indicated that the experienced group reported significantly less concern about handling psychiatric emergencies and working with clients who exhibit strange behaviors.

The use of educational setting as one of the ways to influence attitudes of students towards working with persons with major mental illness has also been studied. Drolen (1993) reported findings regarding the extent to which hospital-based student group and conventional class-room based settings affect graduate students’ opinions about serious mental illness. It was hypothesized that students’ opinions about serious mental illness can be favorably altered by conducting courses at a clinical setting. Results showed that upon the completion of the course, the hospital-based student group showed favorable changes in the attitudes towards mental illness.

Many people have negative attitudes towards individuals with mental illness due to the lack of accurate information about mental illness or the lack of being contacted with individuals with mental illness. Previous research has shown that when participants are given accurate and enough information about mental illness, they have less negative attitudes and less fear towards those individuals (Corrigan et al., 2001; Lyons and Hayes, 1993; Penny, Kasar, and Sinay, 2000).

Formal education and experiences are important vehicles to change the attitude towards mental illness and individuals with mental illness (Angiullo, Whitbourne, and Powers, 1996). Course material serves to build and modify attitudes. Easters, Cooker, and Ittenbach (1998) found that showing students a video and providing them with information about the etiology, symptomatology, diagnosis and prognosis of mental illness and the reality of the stigma related to it helped significantly in improving their attitudes. Likewise, Keane (1990) found that an eight week academic and clinical course in psychiatry and mental health helped in improving attitudes towards mental illness. Drolen (1993) found that academic instructions in the classroom alone was not effective in changing attitudes, whereas the same instructions conducted in a local hospital was effective.
in changing the students’ attitudes. Experience is probably an important change variable. Experience was found to modify attitudes. Furthermore, attitudes based on direct experience have been found to be more influential in predicting later behavior than those based on only learning material (Brehm & Kassin, 1989; Wallach, 2004). Unexpectedly, Callaghan et al. (1997) using the contact hypothesis as a base for a study, found that previous contact with mental illness had no significant effect on the students’ attitudes towards mental illness. In other words, results did not support the contact hypothesis. More support of the importance of personal contact is supported by Corrigan et al. (2001), who found that direct interaction with peoples suffer from depression or psychosis improved students’ attributions about these illnesses more than did education only. Also, the researchers found that increasing public familiarity with serious mental illness will decrease the negative attitudes held about it.

In summary, negative attitudes towards individuals with mental illness influence their quality of life. There are many factors that have been found to influence the attitudes towards mental illness and patients with mental illness such as: prior or previous contact, lack of accurate knowledge about mental illness, and familiarity with mental illness. Changing the negative attitudes of students towards mental illness will affect the quality of patient care.

Materials and Methods

Research Theoretical Framework

Contact hypothesis was used as a theoretical framework for this study. The contact hypothesis was developed in an attempt to bring people from different groups together. The contact hypothesis is still the basis of many of the most widely used techniques of improving intergroup relations (Allport, 1954).

Theorists who believe in the contact hypothesis reported that if people could be brought together in school, work, hospitals, or any other setting under specific conditions; improvements and attitudes in intergroup relations would ensure. However, contact alone is not sufficient condition for improving attitudes (Allport, 1954). Other four factors are central to the early formulations of the contact hypothesis: cooperative interaction, equal status, individualized contact, and social support.

Research Design:

A quasi-experimental, one group pretest-posttest design was employed to test the hypotheses of the study. Dependent variable was the attitudes towards mental illness and patients with mental illness as measured by the Opinion about Mental Illness (OMI) Questionnaire. The higher the OMI score, the more favorable the attitudes. Variables such as previous contact with individuals with mental illness, age, gender, socioeconomic status and place of residency for the participants were studied too. Students’ attitudes towards mental illness were measured two times: before and after taking the psychiatric/mental health course.
Research Hypotheses
1. Jordanian nursing students have positive attitudes towards mental illness.
2. Age, gender, socioeconomic status, and place of residency of the Jordanian nursing students affect their attitudes towards mental illness.
3. Jordanian nursing students who had previous contact with mentally ill people hold more positive attitudes towards mental illness than those who did not have such experience.
4. Jordanian nursing students who took the psychiatric/mental health course (both theoretical and clinical parts) change their attitudes towards mental illness positively.

Instrument:
Opinions about Mental Illness (OMI) questionnaire developed by Cohen and Struening (1962) and modified by Struening and Cohen (1963) was used to measure the students’ attitudes towards mental illness including causes, nature, and treatments. The OMI consists of 51 items which are scored on a 6-point Likert scale ranging from strongly disagree (0) to strongly agree (5). Any item with a value of 3 or above was considered as a factor that contribute positively to attitudes towards mental illness. Questionnaire requires 10-15 minutes to be completed. OMI questionnaire consisted of five factors (subscales): Authoritarianism, Benevolence, Mental Hygiene Ideology, Social Restrictiveness, and Interpersonal Etiology. Reliabilities for the factors were ranged between 0.60 and 0.82.

Authoritarianism (A) stresses the inferiority of mental health patients and the need to handle them in a coercive fashion. An example of an item is “There is something about mental patients that makes it easy to tell them from normal people”. Benevolence (B) measures pro-mental attitudes, in a kindly, paternalistic view. This attitude arises from a moral point of view, and not from the sophisticated professionalism. An example of an item is “Even though patients in mental hospitals behave in funny ways, it is wrong to laugh about them”.

The third factor, Mental Hygiene Ideology (C), sees mental health patients as capable of change, and as requiring proper treatment. These patients are not qualitatively different from others; rather they differ only in degree. An example of an item is “Mental illness is an illness like any other”. Social Restrictiveness (D), emphasizes the need to restrict mental health patients, in order to protect their family and society at large from them. An example of an item is “The small children of patients in mental health hospitals should not be allowed to visit them”.

The fifth factor, Interpersonal Etiology (E), displays a belief that mental illness arises from deprivation of parental love and attention during childhood, and that mental illness often serves as an escape from problems”. An example of an item is “Mental patients come from homes where the parents took little interest in their children”.

Sampling and Data Collection Procedures:
The sample consisted of all nursing students who took the psychiatric/mental health course (both theoretical and clinical parts) during the academic year...
and who were willing to participate in the study. Students who have been working with patients with mental illness or who have taken any mental health course were excluded from the study.

According to Lipsey (1990), considering a two-tailed hypotheses with medium effect size (0.50), power of 0.80, and alpha 0.05; sixty five participants were required for the intervention study. Data were collected after getting the approval from the Scientific Research Committee at the Hashemite University to conduct the study. Students who agreed to participate in the study completed the OMI questionnaire two times: during the first and during the last scheduled class time. The legitimate final sample consisted of 193 students.

Data analysis:
The Statistical Package for Social Science (SPSS version 12.0) was used to generate descriptive and inferential statistics at a significant level of 0.05. Descriptive statistics (means, standard deviations, and frequencies for the sample) were reported. Sumative subscales that were above the cut-off points were considered as a factor that contribute positively to opinion about mental illness. The higher the score, the more positive the attitudes towards mental illnesses. Responses of the negatively worded items were reserved before data analysis.

One way analysis of variance (ANOVA) was used to detect if opinion about mental illness differ according to age, gender, socioeconomic status, and place of residency. In addition, ANOVA was used to detect if the participants changed their attitudes about mental illness after taking the psychiatric/mental health course. Cronbach’s alphas computed for the subscales and were ranged between 0.70 and 0.94.

Results

Descriptive results:
The final sample consisted of 193 participants whom age ranged between 19 and 32 years old (Mean=21.7, SD=1.64). Fifty seven percent of the sample was male (N=108). Regarding the place of residency, most of the participants live in Amman and Al-Zarka (89%). Household family income for most of the participants ranged between 100-299 JDs (43%). Only 27 (14.6%) out of 190 participants have a relative who has mental illness. Fifty eight participants (31.1%) had some previous contact with individuals who have mental illnesses at least one time during their entire life.

Hypothesis One:
Hypothesis one “Nursing students have positive attitudes towards mental illness” was tested employing means, standard deviations for the subscales. Nursing student were found to hold positive attitudes towards mental illness in four of the five subscales (See Table 1). Social Restrictiveness was the only subscale that scores below the cut-off point; indicating that the nursing students have negative attitudes towards mental illness regarding social restrictiveness.
Hypothesis Two:
Hypothesis two “Age, gender, socioeconomic status, and place of residency of the nursing students affect their attitudes towards mental illness” was tested employing ANOVA.

No significant differences were found between nursing students attitudes towards mental illness and their age, gender, socioeconomic status, and place of residency (See Table 2).

Hypothesis Three:
Hypothesis three “Nursing students who had previous contact with people with mental illness hold more positive attitudes towards mental illness than those students who did not have such experience” was

<p>| Table 1. Means, Standard Deviations for Subscales for Pre-test and Post-test (N=193). |
|---------------------------------|-----------------|----------------|-----------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>Subscales</th>
<th>No. of Items</th>
<th>Possible Score</th>
<th>Cut-off (mid) point</th>
<th>Pre-test Mean (SD)</th>
<th>Post-test Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authoritarianism</td>
<td>13</td>
<td>0-65</td>
<td>32.5</td>
<td>*33.88</td>
<td>*39.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(4.18)</td>
<td>(5.05)</td>
<td></td>
</tr>
<tr>
<td>Benevolence</td>
<td>11</td>
<td>0-55</td>
<td>26.5</td>
<td>*31.26</td>
<td>*39.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(4.70)</td>
<td>(4.90)</td>
<td></td>
</tr>
<tr>
<td>Mental Hygiene</td>
<td>11</td>
<td>0-55</td>
<td>26.5</td>
<td>*27.60</td>
<td>*32.5</td>
</tr>
<tr>
<td>Ideology</td>
<td></td>
<td></td>
<td>(4.53)</td>
<td>(4.8)</td>
<td></td>
</tr>
<tr>
<td>Social Restrictiveness</td>
<td>9</td>
<td>0-45</td>
<td>22.5</td>
<td>21.22</td>
<td>22.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(3.94)</td>
<td>(3.70)</td>
<td></td>
</tr>
<tr>
<td>Interpersonal Etiology</td>
<td>7</td>
<td>0-35</td>
<td>17.5</td>
<td>*20.40</td>
<td>*27.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(3.33)</td>
<td>(3.4)</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 0.05

<p>| Table 2. The effect of Demographics on Students Attitudes towards Mental Illness (N=193). |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>Variables</th>
<th>F</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.16</td>
<td>0.24</td>
</tr>
<tr>
<td>Gender</td>
<td>1.03</td>
<td>0.43</td>
</tr>
<tr>
<td>Socioeconomic Status</td>
<td>0.75</td>
<td>0.87</td>
</tr>
<tr>
<td>Place of Residency</td>
<td>0.88</td>
<td>0.69</td>
</tr>
</tbody>
</table>

<p>| Table 3. The Effect of Contact with Mentally Ill Clients on Students' Attitudes Towards Mental Illness (N=193). |
|---------------------------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>Subscales</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authoritarianism</td>
<td>7.12</td>
<td>0.008*</td>
</tr>
<tr>
<td>Benevolence</td>
<td>5.14</td>
<td>0.042*</td>
</tr>
<tr>
<td>Mental Hygiene Ideology</td>
<td>1.01</td>
<td>0.310</td>
</tr>
<tr>
<td>Social Restrictiveness</td>
<td>1.70</td>
<td>0.194</td>
</tr>
<tr>
<td>Interpersonal Etiology</td>
<td>5.02</td>
<td>0.047*</td>
</tr>
</tbody>
</table>

* Significant at 0.05
tested employing ANOVA. There was a significant difference in attitudes between participants who have prior contact with mentally ill clients and those who did not in three out of the five subscales (See Table 3).

Hypothesis Four:
Hypothesis four “Nursing students who took the psychiatric/mental health course (both theoretical and clinical) change their attitudes towards mental illness positively” was tested by employing means and standard deviations for the factors (sub-scales) after completing the theoretical and clinical part of the psychiatric/mental health course. Attitudes of nursing students towards mental illness were changed positively in all five subscales, but significant in four scales: Authoritarianism, Benevolence, Mental Hygiene Ideology, and Interpersonal Etiology (See Table 1).

Discussion

Hypothesis One:
Attitudes are a frame of references around which people organize their knowledge and experience about their world. Attitudes can be positive or negative and so it will affect peoples’ behaviors towards positive or negative manner. Research studies support the idea that attitudes can be modified by knowledge and contact, which in turn, affect positively the treatment and improvement of client status. In the present study, the results showed that nursing students have a significant positive attitudes towards mental illness in four of the five attitudes factors: authoritarianism; benevolence; mental hygiene ideology; and interpersonal etiology (Atkinson, Smith, Bern, and Nolen-Hoeksema, 2000; Levey and Howells, 1994; Socall and Holtgraves, 1992).

Nursing students have a tendency towards benevolence attitudes in dealing with individuals with mental illness rather than the stigmatized attitudes that focus on dealing with clients in a coercion way. This mean that they have a kind, paternalistic, and nurturing view towards mental illness with slight fear reflected by the item describing people with mental illness as being different from normal people, as they agreed that individuals with mental illness should be restricted in their social functions. On the other hand, they significantly agreed that mental illness raised from deprivation of paternal love and attention during childhood, and serve as a way to escape from different life problems and conflicts. They believe that people with mental illness did not differ from normal people in their capability to change and modify their attitudes and behaviors but in the degree and time needed to change, and so, they recognized that mental illness is an illness like any other, and clients can be improved by using different treatment modalities.

The possible explanation for the positive attitudes of the nursing students may be related to cultural factors that emphasize the role of different values and believes about acceptance of ill persons and the importance of availability of support system in their treatment. This is congruent with the previous studies about different factors that formulated positive attitudes towards mental illness such as age, socio-economic status, education, and contact with
individuals with mental illness (Brockington, Hall, Levings, & Murphy, 1993; Levey & Howells, 1994). In addition to these factors, the WHO in its’ world health day of 2001, focuses on cultural effect on the attitudes of health workers and community towards mental illness. This support the contact theory of Allport, 1954, and Rosenberg and Havland, 1960 model of attitudes.

Hypothesis Two:

Summarizing of the study findings about the effect of age; gender; socioeconomic status; and place of residency on students attitudes towards mental illness. There was no significant effect of socioeconomic status (F=0.75), and place of residency (F=0.88), with a very slight effect but not significant for both age (F=1.16) and gender (F=1.03). By looking at nursing students' socioeconomic status, most of the students are from the middle socioeconomic class, this homogenous sample explains this result.

In relation to the place of residency, the WHO in its’ report in 2001, mentioned that people of industrialized nations have more positive attitudes towards mental illness and this is may be due to the greater availability of effective treatments, and high awareness about mental illness. Geographically, Jordan is considered a very small country, most of the middle age people are highly educated despite of their place of residency. And this reflected by the result of this study.

The mean age for the students was (21.7 years), some of the students whom ages are more than (22) are most likely bridging students who are working in different hospitals in Jordan and having a limited experience with mental illness. Those students reflected a positive attitudes towards mental illness. This result is congruent with Brockington, Hall, Leving, and Murphy, 1993; and Levey and Howells, 1994 results. Very slight effect for gender was found; females whom percentage was around (43%) of the study sample was found to have more positive attitudes towards mental illness in benevolence factor; they have the tendency to be supportive, gentleness, and more emotional in dealing with mental illness than male students.

Hypothesis Three:

The study showed that around (58) students out of (193) had some contact with mental illness, for at least one time during their life. The study revealed a significant difference between students who have previous contact with individuals who have mental illness and those students who have no previous contact with the same group of people. In the current study, students’ previous contact with individuals who have mental illness had a positive effect on many aspects of the students' opinions about mental illness, in three out of the five subscales: authoritarianism; benevolence; and interpersonal etiology. Whereas no significant effect for the previous contact on students opinions about mental hygiene ideology, and social restrictiveness. However, the positive general attitudes related to the previous contact as expressed by the nursing students congruent with the the results reported by previous researchers (Wallach, 2004; Corrigan et al., 2001; Penny, Kasar, and Sinay,2000; Brehm and
The results of this study supported the contact hypothesis partially; as the nature of the contact was short. In general, the overall attitudes towards mental illness of the study sample were positive with some deviation to the positive nature affected by previous contact.

**Hypothesis Four:**

In the assessment of the effectiveness of psychiatric/mental health course (both theoretical and clinical parts) on changing nursing students' attitudes towards mental illness, the study revealed significant differences in attitudes towards mental illness after taking mental health course. This findings are directly supported by all previous literature.

All of the attitudes factors: authoritarianism, benevolence, mental hygiene ideology, social restrictiveness, and interpersonal etiology were significantly increased after talking knowledge and experience. Although the fourth factor "social restrictiveness" didn't had a significant effect between pre- and post treatment but it was slightly changed towards the positive direction.

This study showed that students became more kind, paternalistic oriented towards clients with mental illness as it was the most factor changed positively by the treatment. Then, the orientation to the importance of early love, and the effect of deprivation in developing mental illness became a second factor changed by the mental health course. However, the mental health course did not improve students' attitudes and significantly positively towards social restrictiveness. Students still emphasis on the sharp restriction of mental patients both during and after hospitalization in order to protect the society. This is may be due to the relatively short period that student spent with clients who have mental illness, which didn't give them the chance to see the complete improvement for different acute cases in the clinical settings.

**Conclusions**

Positive attitudes of nursing students about mental illness influence the quality of care they deliver to the mentally ill patients. The current study took a very cursory look at the issue of students attitudes towards mental illness. The authors found that attitudes changed favorably because of the mental health course provided for the students, this result could be conducted and used to improve the general population attitudes towards mental illness.

Attitudes are important in determining behaviours, so it is important for the educators to focus on nursing students' attitudes; as they are the future professionals, leaders, researchers, and the policy makers.

**Limitations:**

Lack of control group is one of the limitations of this study. Further studies controlling the treatment would be beneficial. The effect of pretest also may affect students' responses in post-test. However, the time between pre and post tests was four months; which is may be relatively enough time for the students to forgett the items of the questionnaire.

Further studies are required to confirm these findings, and to improve the meth-
methods of teaching and contact period during the course. Another study suggested to be conducted to assess the attitudes of nurses working with mental illness in order to test the effect of long contact with mental illness on nurses attitudes.

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**References:**


