Demographic Factors Influencing Psychological Distress among Health Professionals in Ogun State

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Abstract: The study investigated the influence of demographic variables on psychological distress among purposively selected health professionals. Participants were 241 health professionals randomly selected from Ogun State in South-west Nigeria. Participants’ mean age was 38.9 years (SD = 9.24) while 106 (43.8%) of participants were medical doctors, 121 (50.0%) were nurses and the remaining 15 (6.2%) were other allied health professionals. Psychological distress was generally high among respondents. Work experience had significant influence on psychological distress with more experienced professionals reporting higher level of psychological distress than those with less experience (t = 2.63; df = 240; p < .05). There was no significant difference in psychological distress based on professional category (doctors, nurses, and allied professionals), age and sex. The study concluded that health professionals are prone to psychological distress. Health workers should be encouraged to seek help when faced with socio-emotional issues. Management of hospitals and health care centres should consider routine psychological intervention such as assessment, debriefing, and employee assistance programmes (EAPs) for doctors and other personnel.

Introduction

The training and orientation of health professionals prepares them to be resilient, hardy and to render care even under extreme circumstances. However, psychological distress is inevitable due to the emotional nature of the work, constant exposure to themes of death and dying, inability to help (though willing) in certain
situations due to ethical, financial and infrastructural constraints and unfavourable work climate. There is ample empirical evidence that suggests high incidence of psychological distress among health workers, especially medical doctors and nurses (e.g. Doan-Wiggins, Zun, Cooper, Meyers & Chen, 1995; Grassi & Magnani, 200; Lemkau, Rafferty & Gordon, 1994; Olley, 2003; Ramirez, Graham, Richards, Cull, Gregory & Learning, 1995; Shanafelt, Bradley, Wipf & Back, 2002).

Health professionals frequently report high levels of psychological distress which portends huge physical, psychological, social and economic costs to the individual health professionals and their families, the care recipients and their families, the health system, and the society at large. Caplan (1998) reported that about 50% of senior medical staff suffers from high level of stress and similar proportion suffers from depression and anxiety. The level of stress experienced by health professional appears to vary according to work setting. Prosser (1996) posited that health professionals working in agency settings reported higher levels of psychological distress than did those engaged solely in private settings.

Salminen & Tallberg (1996) examined the effects of age on psychological distress in their report they reported that 84-94% of psychological distress were discovered to be due to mainly the effect of age. Laflamme (1996) examined age-related psychological distress among health professionals/workers and found that psychological distress was generally higher among younger workers. Similarly, Cellier Etrolle & Betand (1995) reported that age and work experience significant affected frequency and seriousness of psychological distress among health professionals.

Psychological distress varies with occupational categories. For instance, Perry, Shwna, Wears et al., (2000) found that doctors and nurses differ in mean distress levels. Nature of work also tends to influence psychological distress in health professionals. For instance, Vander Ploeg, Dorresteijn & Kleber (2003) found physicians and other allied professionals who were exposed to chronic job stressors such as confronting critical incidents, were more prone to elevated levels of post traumatic responses, burnout and fatigue.

Many studies found that level of work-stress vary according to differences in socio-demographic factors (Al-Fadli, 1999, Nusair & Deibageh 1997, Haines, Hurlbert and Zimmer 1991). A study revealed that the older the employee, the less work stress/psychological distress level (Rathod, Roy, Leena, Ramsay, Das, Birthwistle & Kingdom 2000), but the higher the educational level, the more psychological distress level (Haines et al., 1991). It was also found that being 55 years or less and being single were independent risk factors for burnout (Ramirez, Graham, Richards, & Gregory, 1995). Females were more likely to report being stressed (Rathod et al., 2000 & Al-Mishan 2001).

Another study conducted in Saudi Arabia showed that the effect of job demands on primary health care doctors’ social life was a source of stress (Al-Shammari, 1996). Deary, (1996) indicated that higher clinical
workloads were related to higher stress. Responsibility for others, and career development were also found to be of significant relationship with work stress among doctors (Nusair & Deibageh, 1997). Studies have also suggested that emotionally disturbed physicians have more trouble relating to patients and the quality of the care they provide may suffer (Gundersen, 2001, Quinlan, 1980). Prosser (1996) examined the responses of a mixed group of 121 health professionals working in mental health found higher levels of emotional exhaustion among those working in community settings compared with those working in hospital-based in patient, day care or outpatients settings, Deckard, Hicks and Hamory (1992) found in a sample of 1,840 physicians in the United States that 43% scored high on emotional exhaustion while 40.3% scored high on depersonalization.

Furthermore, in a study of 966 general practitioners, one-third reported significant levels of job stress, which varied according to age, sex and attitudes to general practice (Winefield & Antey, 1991). Olley (2003) found that nurses, compared to other health professionals studied, were significantly higher on burnout (emotional exhaustion, depersonalization and low level of personal accomplishment), psychological health and trait anxiety. Frustrations, tensions and annoyance with time pressures are linked to giving short shrift (Grol, Mokkink, Smith, Van Ejik, Beek and Mesker (1985). Another study covered 1317 diplomates of the American Board of Emergency Department (ABEM) showed that more than one quarter of the sample felt burned out or impaired, while 23.1% reported that they were planning to leave the practice within five years (Doan-Wiggins, Zun, Cooper, Meyers and Chen 1995). Shanafelt, Bradley, Wipf and Back (2002) found that of their sample (resident doctors), 76% met the criteria for burnout. Other researchers have also reported that burnout and other forms of emotional distress are very common among practicing health professionals, with rates ranging from 25% to 60% (Ramirez, Graham, Richards, Cull, Gregory and Learning, 1995, Lemkau, Rafferty and Gordon, 1994, Grassi and Magnani, 2000).

Despite the preponderance of empirical literature suggesting high incidence of psychological distress among health personnel, this line of research has received scanty attention by researchers and other stakeholders in Nigeria. This has further contributed to problems such as the brain drain syndrome in which many of the highly qualified professionals in the health sector are leaving Nigeria for better work climates abroad. The problem has also lead to burnout syndrome, absenteeism, presenteeism, lack of commitment and work-related accidents and fatalities. There is need, therefore, for more research on the issue of psychological distress among health professionals in Nigeria, with a view towards ensuring the well-being of these professionals and ultimately helping to ensure provision of better services to care recipients.

**Method**

**Participants**

Participants were 241 health professionals randomly selected from Ogun State in South-West Nigeria. Participants’ mean age was 38.9 years (SD = 9.24), while 106 (43.8%) of
participants were medical doctors, 121 (50.0%) were nurses and the remaining 15 (6.2%) were other allied health professionals. In terms of work setting, 96 (39.7%) of respondents were working in private settings while 146 (60.3%) were working in the public setting. Participants’ mean work experience was 6.47 years (SD = 5.29). One hundred and ten (45.5%) of the respondents were males, while 132 (54.5%) were females. Forty seven (19.4%) of respondents were single, 177 (73.1%) were married, 10 (4.1%) were widowed while 8 (3.3%) were divorced.

Instrument
A two-sectioned questionnaire was used to collect relevant data. The first part of the questionnaire assessed participants’ demographic information such as age, sex, marital status, work setting, educational qualification, job designation, department and work experience. The second section consisted of Depression, Anxiety and Stress Scales (DASS-42) developed by Lovibond and Lovibond’s (1995). DASS-42 is a set of three self-report scales designed to measure the negative emotional states of depression, anxiety and stress. Participants indicated how much each of the forty-two statements on the scale applied to them over the past week by ticking 1 “Did not apply to me at all”, 2 “Applied to me to some degree, or some of the time”, 3 “Applied to me a considerable degree, or a good part of the time” or 4 “Applied to me very much, or much of the time.” Each of the three dimensions was measured with 14 items. The higher the score on any of the dimensions of the scale, the higher the level of corresponding psychological distress and vice versa. In the present study, co-efficient alpha and split-half reliability for the composite scale were .96 and .88 respectively, while coefficient alpha of .90 for depression, .93 for anxiety and .93 for stress scales were also obtained.

Procedure
The study was conducted among health professionals in Ogun State. The researcher used a questionnaire with two sections to collect the relevant data for the study. Two hundred and fifty copies of questionnaires were produced and these were taken to various health professional settings in Ogun State for data collection. The researcher approached the directors of different health setting visited, explained the purpose of the study to them and sought permission from them to allow their workers to participate in the study. After permission to conduct the study had been given, 250 questionnaires were administered out of which 241 were retrieved with usable data.

Result
We tested the hypothesis that less experienced health professionals will report significantly higher on psychological distress than more experienced health professionals, using t-test for independent measure. The result is presented in 1.
Table 1: Summary of t-test analysis showing the difference on psychological distress between less experienced health professional and more experienced health professionals.

<table>
<thead>
<tr>
<th>Work Experience</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Experienced</td>
<td>135</td>
<td>35.5</td>
<td>19.4</td>
<td>-2.63</td>
<td>240</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>More Experienced</td>
<td>107</td>
<td>41.9</td>
<td>17.8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result showed a significant difference between health professionals who have less experienced and health professionals who have more experienced on reported psychological distress (t = -2.63; df = 240; p < .05). A glance at the mean differences revealed that health professionals who have more experience reported higher level of psychological distress (M = 41.9) than health professionals who have low experienced (M = 35.5).

We also examined the influence of age on psychological distress. Specifically, we hypothesized that younger health professional would report significantly higher on psychological distress than older health professionals, using t-test for independent measure. The result presented in Table 2 showed no significant difference between younger and older age of health profession on psychological distress (t = 1.711; df = 240; p > .05). In other words, both younger and older health profession reported comparable levels of psychological distress.

Table 2: Summary of t-test analysis showing the difference between younger health professionals and older age health professionals on psychological distress.

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger</td>
<td>53</td>
<td>34.4</td>
<td>18.1</td>
<td>-1.711</td>
<td>240</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Older</td>
<td>189</td>
<td>39.4</td>
<td>19.1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

We further hypothesized that there would be a significant influence of job designation and sex on psychological distress and this was tested using two-way analysis of variance (Table 3). Job designation did not show significantly main effect on psychological distress (F (2,236) = 2.34, P > .05) while sex did not show significant main effect on psychological distress (F (1, 236) = .76, P > .05). Job designation and sex did not show significant interaction effect on psychological distress. This indicates that there was neither independent nor joint (interaction) effect of job designation and sex on psychological distress (F (2,236) = .75, P > .05).

Table 3: Summary tables showing comparison of job designation and sex on psychological distress

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job designation</td>
<td>1677.97</td>
<td>2</td>
<td>838.99</td>
<td>2.34</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Sex</td>
<td>270.59</td>
<td>1</td>
<td>270.59</td>
<td>.756</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Job designation *Sex</td>
<td>535.03</td>
<td>2</td>
<td>267.51</td>
<td>.747</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Error</td>
<td>84504.6</td>
<td>236</td>
<td>358.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>86576.5</td>
<td>241</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Hypothesis that there would be a significant joint influence of work setting and educational qualification on psychological distress was tested using two-way analysis of variance. The result is presented in 4.

Table 4: Summary tables showing comparison of work setting and educational qualification on psychological distress.

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Setting</td>
<td>18.03</td>
<td>1</td>
<td>18.03</td>
<td>.05</td>
<td>&gt; .05</td>
</tr>
<tr>
<td>Education</td>
<td>4110.94</td>
<td>4</td>
<td>10.2774</td>
<td>2.93</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Work setting and education</td>
<td>348.63</td>
<td>3</td>
<td>116.21</td>
<td>.33</td>
<td>&gt; .05</td>
</tr>
<tr>
<td>Error81700.18</td>
<td>233</td>
<td></td>
<td>350.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected total</td>
<td>86576.50</td>
<td>241</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Work setting did not have significant main effect on psychological distress F (1,233) = .05, P > .05). However, educational qualification indicated a significantly main effect on psychological distress F (4,233) = 2.93, P < .05. An examination of the mean scores for the two educational groups (“high” versus “low”) indicated that the “High” educational group reported significantly higher on psychological distress than the “Low” educational group. Work setting and educational qualification did not show significant interaction effect on psychological distress.

Finally, we examined the influence of marital status on psychological distress among health professionals. The four levels of marital status reported by respondents (single, married, widowed and divorced) were analysed, using a one way ANOVA (Table 5).

Table 5: Summary table showing comparison of single, married, widowed and divorced health professionals on psychological distress.

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital status</td>
<td>4223.14</td>
<td>3</td>
<td>1407.71</td>
<td>4.07</td>
<td>&gt; .05</td>
</tr>
<tr>
<td>Error</td>
<td>82353.36</td>
<td>238</td>
<td>346.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected total</td>
<td>86576.50</td>
<td>241</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results indicated a significant influence of marital status on psychological distress among health professionals F (3, 238) = 4.07, p < .05. An examination of the mean scores for the various groups indicated that married personnel scored lowest on psychological distress (M = 30.18) compared with single (M = 34.29), widowed (M = 39.55) and divorced (M = 41.13).

Discussion
The present study investigated psychological distress among health professionals in Ogun State, Nigeria, and the roles of occupational category, age, gender, education, work setting and marital status on psychological distress. In line with existing empirical evidence (e.g. Doan- Wiggins et al., 1995; Grassi & Magnani, 2000; Lemkau et al., 1994; Olley, 2003; Ramirez et al., 1995; Shanafelt et al., 2002) suggesting high incidence of psychological distress among health workers. Respondents in the present study reported high levels of psychological distress. The high level of psychological distress among these
categories of professionals could be due to the excessive workload as well as the emotion-laden nature of their job.

We found that the more experienced health personnel reported higher levels of psychological distress than the relatively less experienced ones. Although this appears to be at variance with existing evidence (Prosser, 1996; Shanafelt et al., 2002). It is possible that less experienced personnel are less psychologically distressed because they do not carry as much responsibility as the experienced ones. For instance, the Consultants rather than the Residents would answer for major actions and inactions in the hospital settings. Also, the most experienced personnel would attend several meetings and carry additional burdens, thus adding to existing heavy workload. These might contribute to the elevated psychological distress reported by the more experienced personnel. The same explanation may be adduced for the findings regarding the non-significant influence of age on psychological distress.

Gender and job designation did not significantly influence psychological distress. These findings appear to be inconsistent with previous reports (e.g. Perry et al., 2000; Rathod et al., 2000; Al-Mishan 2001) who found that females were more likely to report greater psychological distress; and Olley (2003) who found higher incidence of burnout syndrome among nurses (compared to medical doctors). A plausible explanation for this finding is that there may be some very crucial organizational variables in the health work setting such that all cadres of workers are affected, irrespective of being a male or a female. However, further examination of these findings would be illuminating.

Finally, a significant influence of marital status on psychological distress was found, with married personnel reporting significantly lower on psychological distress relative to single, divorced or widowed personnel. This finding has further corroborated the beneficial role of being in a marriage or conjugal relationship as supported by previous researchers (Grassi & Magnami, 2000; Shanafelt et al., 2002; Vander Ploeg et al., 2003). As demonstrated by these and other researchers, and confirmed in the present study, the instrumental and emotional supports inherent in a marital relationship can hardly be overemphasized.

In conclusion, psychological distress was generally high among respondents. Work experience had significant influence on psychological distress with more experienced professionals reporting higher level of psychological distress than those with less experience. There was no significant difference in psychological distress based on professional category (doctors, nurses, allied professionals), age and sex.

Health professionals, like other helping professionals are prone to psychological distress. Health workers should be encouraged to seek help when faced with socio-emotional issues. Management of hospitals and health care centers should consider routine psychological intervention such as assessment, debriefing, and employee assistance programmes (EAPs) for doctors and other personnel. Finally, researchers should focus more attention on this very important but obviously under-
researched issue. These would help to enhance the psychological well-being of these professionals and ultimately improve the quality of the service they provide.

References


Perry; Shawna, J.; Wears; Robert, L.; Morey; John; Jay; Gregory & Simon, Robert (2000). Determinants of Workplace Stress in Emergency Physicians and Nurses. Academy of Emergency Medicine, 7(5); 518.


