PSYCHOLOGICAL DISTRESS AND ASSOCIATED PERSONAL AND WORKPLACE STRESSORS AMONG BREAST CANCER SURVIVORS

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By

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PSYCHOLOGICAL DISTRESS AND ASSOCIATED PERSONAL AND WORKPLACE STRESSORS AMONG BREAST CANCER SURVIVORS

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Introduction: The number of women employed at the time of breast cancer diagnosis has risen gradually and most of the survivors were younger than 65 years and the majority would most likely return to work. Working survivors might face social and economic hardship, workplace stress and psychological burdens either individually or with their coworkers or their superiors. Thus, this study will promote a better understanding of the psychological distress experienced by working breast cancer survivors, and to determine associated workplace and personal factors contributing to the psychological distress. Objective: To determine personal and workplace stressors and their associations with psychological distress of working breast cancer survivors. Methodology: This cross-sectional study was conducted at 2 hospitals and 4 support groups. One hundred and fifty breast cancer survivors were recruited. Personal Stress
Inventory (PSI) and Job Content Questionnaire (JCQ) were used to determine personal and workplace stressors, respectively. Psychological distress was determined using the Hospital Anxiety and Depression Scale (HADS) and Distress Thermometer (DT). Salivary α-amylase assay kit was used to analyze the salivary α-amylase levels, are indicator of psychological distress. **Results:** The Cronbach’s alpha coefficient for the Malay translated version of HADS subscales were better (α = 0.81 for anxiety and α= 0.73 for depression) compared to the Chinese version (α = 0.67 for anxiety and α= 0.70 for depression). The cut-off point of 5 on DT had maximized the balance between sensitivity and specificity rates in detecting the caseness of anxiety, depression and distress. In personal, family and household stressors were significantly associated with anxiety (OR =1.42, p<0.001), depression (OR =1.18, p<0.001) and distress on both HADS (OR =1.24, p<0.001) and DT (OR =1.20, p<0.001). For workplace stressors, only job strain was significantly association with anxiety (OR=4.74, p<0.001). Psychological job demand was significantly associated with depression (OR =8.08, p<0.001) and social support was a protective factor for depression (OR =0.39, p=0.041). Psychological job demand and job strain showed significant associations with distress on both HADS (OR =4.40, p=0.012; OR=6.09, p=0.032) and DT (OR =5.49, p=0.052; OR =3.17, p=0.037). For stress-related symptoms, musculoskeletal system related symptoms (OR =4.21, p=0.003) and sleeping habit and pattern problem (OR =5.24, p=0.002) showed significant association with anxiety. While, work load and task delivery problem is the only stress-related symptom that showed significant association with depression (OR =3.45, p=0.030). Memory and attention span problem (OR =5.42, p=0.037) and work load and task delivery problem (OR =4.38, p=0.008) showed significant association with distress.
on HADS while musculoskeletal system related symptoms (OR =4.63, p=0.011) and work load and task delivery problem (OR =8.03, p=0.007) showed significant association with distress on DT. Salivary α-amylase showed significant association with anxiety (OR =3.21, p=0.032), depression (OR =7.78, p=0.002) and distress on HADS (OR =6.48, p=0.002). Therefore, salivary α-amylase was found to be a potential indicator of psychological distress. **Conclusion:** The Malay and Chinese version of HADS and DT were reliable and validated measures. It is clear that most distressed survivors experienced anxiety, depression and distress due to both workplace and personal factors. Among all stressors, psychological job demand, job strain and family and household factors, symptoms of musculoskeletal system, sleeping habit and pattern problem, memory and attention span problem and work load and task delivery problem were significant predictors of psychological distress whereas social support served as a protective factor. The salivary α-amylase level was a reliable indicator of psychological distress.

**Keywords:** Psychological distress, personal stressors, workplace stressors, α-amylase level
Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai keperluan untuk memenuhi ijazah Master Sains

TEKANAN PSIKOLe OGI DAN HUBUNGANNYA DENGAN STRESOR PERIBADI DAN PEKERJAAN DALAM KALANGAN SURVIVOR KANSER PAYUDARA

Oleh

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Januari 2012

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Pendahuluan: Diagnostik kanser payudara dalam kalangan wanita yang bekerja semakin meningkat dan kebanyakan pesakit kanser payudara adalah berumur kurang daripada 65 tahun dan kebanyakan mereka berupaya untuk bekerja semula selepas rawatan. Pesakit kanser payudara berkemungkinan menghadapi masalah sosial, ekonomi, stres di tempat kerja dan tekanan psikologi samaada secara peribadi ataupun dengan rakan sekerja dan penyelis di tempat kerja. Oleh itu, kajian ini akan memberi kefahaman yang lebih mendalam terhadap psychological distress kepada pesakit kanser yang bekerja dan mengenalpasti faktor peribadi dan pekerjaan yang menyebabkan tekanan psikologi. 

Objektit: Tujuan kajian ini adalah untuk mengkaji stresor peribadi dan pekerjaan dan hubungannya dengan tekanan psikologi dalam kalangan survivor kanser payudara yang bekerja. Kaedah: Kajian irisan lintang ini telah dijalankan di 2 hospital kerajaan dan di
kalangan 4 kumpulan sokongan kanser. *Personal Stress Inventory (PSI)* dan *Job Content Questionnaire (JCQ)* telah digunakan untuk mengkaji stresor peribadi dan pekerjaan. Tekanan psikologi dikaji dengan menggunakan *Hospital Anxiety and Depression Scale (HADS)* dan *Distress Thermometer (DT)*. Sampel air liur dianalisis dengan menggunakan keadaan analisis *Salivary α-amylase assay kit* untuk mendapatkan tahap α-amilase sebagai indikator distres psikologi. **Hasil kajian:** Cronbach’s alpha coefficient bagi versi terjemahan Bahasa Melayu *HADS* (α =0.81 bagi keresahan dan α =0.73 bagi kemurungan) adalah lebih tinggi berbanding dengan versi terjemahan Bahasa Cina *HADS* (α =0.67 untuk keresahan dan α =0.70 untuk kemurungan). Angka pembatas (cut-off) 5 bagi *DT* adalah maksima untuk keseimbangan antara kadar kepekaan dan pengkhususan semasa mengesan kes keresahan, kemurungan dan tekanan psikologi. Bagi stresor peribadi, faktor keluarga dan rumah tangga menunjukkan hubungan signifikan dengan keresahan (OR=1.42, p<0.001), kemurungan (OR=1.18, p<0.001) dan tekanan psikologi dalam *HADS* (OR=1.24, p<0.001) dan *DT* (OR=1.20, p<0.001). Bagi stresor pekerjaan, hanya kekangan kerja menunjukkan hubungan signifikan dengan keresahan (OR=4.74, p<0.001). Pemintaan psikologi kerja menunjukkan hubungan signifikan dengan kemurungan (OR=8.08, p<0.001) dan sokongan sosial adalah faktor perlindungan bagi kemurungan (OR=0.39, p=0.041). Pemintaan psikologi kerja dan kekangan kerja menunjukkan hubungan signifikan dengan tekanan psikologi yang diuji dengan menggunakan *HADS* (OR=4.40, p=0.012; OR=6.09, p=0.032) dan *DT* (OR=5.49, p=0.052; OR=3.17, p=0.037). Untuk gejala stres, gejala masalah gangguan otot-rangka (OR=4.21, p=0.003) dan masalah tabiat dan corak tidur (OR=5.24, p=0.002) menunjukkan hubungan signifikan dengan keresahan. Masalah beban kerja dan
penyiapan tugas adalah satu-satunya gejala stres yang menunjukkan hubungan signifikan dengan kemurungan (OR=3.45, p=0.030). Masalah peringatan dan perhatian (OR=5.42, p=0.007) dan masalah beban kerja dan penyiapan tugas (OR=4.38, p=0.008) menunjukkan hubungan signifikan dengan tekanan psikologi dengan menggunakan HADS manakala, gejala masalah gangguan otot-rangka (OR=4.63, p=0.011) dan masalah beban kerja dan penyiapan tugas (OR=8.03, p=0.007) menunjukkan hubungan signifikan dengan tekanan psikologi dalam DT. Pengujian α-amilase dalam air liur menunjukkan hubungan signifikan dengan keresahan (OR=3.21, p=0.032), kemurungan (OR=7.78, p=0.002) dan tekanan psikologi (OR=6.48, p=0.02) dalam HADS. Dengan ini, α-amilase dalam air liur didapati berpotensi sebagai indikator tekanan psikologi. **Kesimpulan:** HADS dan DT dalam versi Bahasa Melayu dan bahasa Cina adalah tepat dan sahih. Adalah jelas bahawa survivor yang distressed, mengalami keresahan, kemurungan dan tekanan psikologi disebabkan oleh stresor peribadi dan pekerjaan. Antara semua stresor, permintaan psikologi kerja, kekangan kerja, faktor keluarga dan rumah tangga, gejala masalah gangguan otot-rangka, masalah tabiat dan corak tidur, masalah peringatan dan perhatian dan masalah beban kerja dan penyiapan tugas adalah faktor penyebab tekanan psikologi manakala, sokongan sosial adalah faktor perlindungan. α-amilase dalam air liur adalah indikator yang peka bagi tekanan psikologi.

**Kata kunci:** Tekanan psikologi, stresor peribadi, stresor pekerjaan, α-amylase
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APPROVAL SHEET 1

I certify that an Examination Committee has met on date of viva voce to conduct the final examination of Yong Heng Weay on her Master of Science thesis entitled “psychological distress and its association with personal and workplace stressors among breast cancer survivors” in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The committee recommends that the student be awarded the Master Science.

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DECLARATION

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institution.

___________________________
YONG HENG WEAY

Date:
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