UNIVERSITI PUTRA MALAYSIA

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

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FPSK(m) 2012 19

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MASTER OF SCIENCE
UNIVERSITI PUTRA MALAYSIA
2012

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By

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Thesis submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfillment of the Requirements for the Degree of Master of Science

January 2012

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the degree of Master of Science

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

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January 2012

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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 PSIKOLOGI 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 kebanyakkan pesakit kanser payudara adalah berumur kurang daripada 65 tahun dan kebanyakkan 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 penyelia 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. **Objektif:** 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 keadah analisasi *Salivary α-amylase assay kit* untuk mendapatkan tahap α-amilase sebagai indikator distres psikolgi. **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 meunjukkan hubungan signifikan dengan kemurungan (OR=8.08, p<0.001) dan sokongan sosial adalah faktor perlindungan bagi kemurungan (OR=0.39, p=0.041). Permintaan 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 tugasan 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 tugasan (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 tugasan (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 rumahtangga, gejala masalah gangguan otot-rangka, masalah tabiat dan corak tidur, masalah peringatan dan perhatian dan masalah beban kerja dan penyiapan tugasan 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

ACKNOWLEDGEMENTS

This study was supported by the Research University Grant Scheme (RUGS) 2010 under the Initiative 6 (Post-Graduate Research Scheme). I am grateful to many people who had helped and contributed directly or indirectly in various ways in making this study come true. First and foremost, my deepest gratitude should go to my supervisor Prof. Dr. Zailina Hashim and my supervisory committee member, Dr. Zubaidah Bt Jamil @ Osman and Associate Prof. Dr. Saidi Bin Moin for giving their time, endless guidance and encouragement. Their constructive critism and comments had been very useful in the planning and executing processes of this study.

Further, I would like to thank all staff at Pathology laboratory, Faculty of Medicine and Health Sciences for their valuable cooperation. Besides, appreciation to the selected 2 government hospitals and 4 support groups, for giving permission, cooperation and support in conducting this project at their setting. Sincere heartfelt appreciations to all participants for giving fullest of cooperation and contribution directly in making this study success. Last but not least, thanks to others who were directly or indirectly involved in this study. This study would not happen smoothly without their support and encouragement throughout the whole process for preparing this project. Thank you.

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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