

Knowledge, Attitude and Perceived Effectiveness on MBSR for Anxiety and Depression Among Cancer Patients in Malaysia: A Qualitative Exploration

Che Noriah Othman^{1*}, Syed Azhar Syed Sulaiman², Maryam Farooqui³, Wan Ismahaniza Ismail⁴ and Phang Cheng Kar⁵

Abstract Mindfulness-based Stress Reduction (MBSR) has been widely utilized in many parts of the world for the treatment of various types of chronic diseases including anxiety and depression among cancer patients. Patients diagnosed with cancer experienced tremendous stress and if left unattended may lead to anxiety and depression and affects clinical outcome. The knowledge, attitude and how patients perceive the effectiveness of MBSR help in program compliance. This study explored the knowledge, attitude, and perceived effectiveness of MBSR for anxiety and depression among cancer patients in Malaysian using a qualitative approach. Face to face interviews was conducted on twenty patients using a semi-structured guided interview guide. A saturation point was reached after the 18th interview, and no new information gathered with the subsequent 2 informants. The recorded interviews were transcribed and analysed according to the standard content analysis framework. N-Vivo program was applied to speed up analysis. Result: Most patients reported to have very little knowledge of MBSR. However, they have a very positive attitude toward the program. They perceived MBSR would be beneficial for their cancer as they believed that anything to do with mind and body would be good for health. Even-though they knew very little about MBSR, most of them have utilized at least one type of MBSR components for their anxiety and depression. This study revealed the primary understanding of cancer patients' knowledge, attitude and perception of MBSR for anxiety and depression, and the type of MBSR used for their stress coping. These findings hopefully will support MBSR to be appreciated in the health care setting as one of the modalities for stress reduction program to complement the existing management of anxiety and depression among cancer patients for a better clinical outcome.

Keywords--- Mindfulness-based Stress Reduction, Anxiety and Depression, Cancer Patients, Knowledge, Attitude and Perception, Qualitative Exploration.

¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia.

²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.

^{*}Corresponding Author Email: chenoriaho@yahoo.com



I. INTRODUCTION

The diagnosis of cancer causes dramatic physical and psychological stress experiences. Thirty to forty per cent of patients diagnosed with cancer experienced psychiatric disorders. This indicated that an effective and accessible measure of psychological treatment is in an urgent need with the increased number of cancer patients are diagnosed every day (Chadi et al., 2017).

The treatment in the current Malaysian Health Care setting does not provide enough psycho-oncological service to attend the patients made them opted for Traditional and Complementary (T&CM) Medicine including the mindfulnessbased therapy or mind-body therapy such as relaxation and imagery, hypnosis, yoga, meditation, tai chi and qigong, and art therapies. Many patients turned to mind-body as a way to manage stress and improve HRQOL as the belief on what we think and feel can influence our health and healing (Chen et al., 2013).

Mindfulness is a concept started by Professor Kabat Zinn at the University of Massachusetts, the United States in 1979. Interestingly most of the components of mindfulness utilized in MBSR are found written in AL-QURAN and are encouraged to be practised as a way of life to achieve the desired quality of health (Parrott, 2017). MBSR program attracted attention in the domains of emotion research, clinical intervention for anxiety and depression and other clinical problems made this mindfulness-based exercise more popular in the clinical setting (Allen et al., 2006).

MBSR was brought to Malaysia in 2012 by Dr Phang Cheng Kar a psychiatrist and had tested this program in few clinical setting (Phang et al., 2014) and in the general population including Medical Students (Phang et al., 2016) Nurses (Hee et al., 2013) and counselling teachers http://www.klbmha.com/category/mindfulness and are found to be effective for distress problem including anxiety and depression (Phang et al., 2014).

Stress if not early treated may lead to anxiety and depression, will interfere with the treatment compliance and will affect the clinical outcome (Nikbakhsh, Moudi, Abbasin, & Khafri, 2014). The uncertainty of their life future, scared of the treatment procedures and the effects of the treatment were some of the factors that contributed to their stress. (Alhusban, 2019). All the negative impact mentioned, deteriorated the quality of life (QoL) of the patients and a holistic approach of management is suggested (Barre, Padmaja, Rana, & Tiamongla, 2018).

Patients' counselling was normally introduced after the treatment regime to increase their self-esteem, however, the model introduced in most clinical settings in Malaysian Government Hospital mostly covers the physical symptoms of the patients not much from the psychological perspective. The module used also was not standardized among counsellors. Most of the counsellors conducting the case base on their knowledge background and working experience (S. et al., 2018). Psycho-oncology service is available to provide a basic general consultation but the number is 0.83 per 100,000 population. The psychological needs of patients with cancer are an essential component of comprehensive high-quality medical care. It is concerned with complex needs surrounding the psychological, social, behavioural, and ethical aspects of cancer. The Ministry of Health (MoH) Malaysia realized on the need as it is projected that by 2020 there will be an increase in the number of consultation-liaison psychiatrists that may be extended to cancer patients. As in 2015, there were 3 consultation-liaison psychiatrists in the MoH (http://www.moh.gov.my) only. This shows the importance of mental health among cancer patients to be handled separately by professionals.

MBSR program attracted attention in the domains of emotion research, clinical intervention for anxiety and depression and other clinical problems made this mindfulness-based exercise more popular in the clinical setting (Allen et al., 2006). Knowledge and how patients perceive MBSR is important to ensure patients' adherent and compliance toward the program. This study was conducted to evaluate patients' knowledge, attitude and perceived effectiveness for anxiety and depression among cancer patients in Penang, Malaysia. The stress coping strategy opted by the patients reflect the type of psychological supports needed.

¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia.

²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.

^{*}Corresponding Author Email: chenoriaho@yahoo.com



II. METHODOLOGY

This study intends to:

- 1. To explore the knowledge, attitude and perceived effectiveness of MBSR for anxiety and depression among cancer patients.
- 2. To explore the experiences of stress coping strategies used by cancer patients for anxiety and depression. **Design and setting**

This study was approved by USM-Lam Wah Eee Ethic Committee on clinical studies (USM-HLWE/IEC2018). No research was conducted in Malaysia involving cancer patients' knowledge, attitude and perception on MBSR and the utilization of MBSR for anxiety and depression. Therefore qualitative research was adopted to explore the issue. The study was conducted at MAKNA (Majlis Kanser Negara) activity centres and Advanced Medical and Dental Institute (AMDI) USM, in Penang.

Tool

This study utilized a semi-structured interview guide prepared from a thorough literature search. The questioned were prepared in aa appropriate listing to cover the standard content of the theoretical framework of the study. The questions were to assess the patients' knowledge, attitude and perceived effectiveness on MBSR for anxiety and depression. The type of treatment they utilized for anxiety and depression since the cancer diagnosis were also explored. The open-ended question was applied to give the informants a wider space to share their experiences. The first draft of the interview guide was discussed among the authors and was modified after a few rounds of discussion. Pilot interviews were conducted on a few cancer patients to check the relevancy of the questions for information retrieval. (Broom, 2005). Questions which did not meet the specific probes were identified modified accordingly.

Participants

The participants were selected from Malay, Chinese, and Indian as these three ethnic groups contributed to a major population of Malaysia from January until June 2019. The inclusion criteria were patients at the age of 18 and above and diagnosed with any type of cancer from the last six months until less than five years. The patients were recruited during their participation in the monthly cancer support group meeting at MAKNA (Majlis Kanser Negara) activity centres all over Penang and at Advanced Medical and Dental Institute (AMDI) USM. A total of 20 patients were approached upon signing the inform consent. The interviews were conducted one by one until saturated whereby the subsequent two informants did not reveal any new information.

Procedure and Interview process.

The interviews took around 45 to 60 minutes individually in a close room. The interviews were conducted in Malay, however, those who were not fluent in Malay were allowed to express their views in English. The interviews were recorded and transcribed after each informant. The interviews were conducted on all the patients until saturated. The transcribed interviews were sent to each participant and given them one week to approve the transcript by signing and return the approval form. Patient's demographic data, disease-related information were gathered together with the patients' information sheet and consent form. The interviews mainly focus on cancer patients' knowledge and attitude on MBSR, and how they perceive MBSR for anxiety and depression thus cancer healing. Furthermore, information was gathered on their previous experience with anxiety and depression upon cancer diagnosis and how was their stress coping strategy to overcome that episode and types of MBSR utilized by them during the stress episode. Probing questions were used where necessary to get a more thorough understanding of the issue. Base on the thematic content analysis, the interviews were transcribed and analyzed for relevant content to identify the emerging category.

III. RESULTS AND ANALYSIS

Twenty patients aged between 25 to 72 years old were interviewed (mean age were 49.4 +/- 13.1 SD). The highest percentage of age group were contributed by the group age of 51-60 years old (38.9%), followed by 31-40 years old

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.

¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia.

²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

³Unaizah College of Pharmacy, Qassim University, Saudi Arabia.



ISSN:1475-7192

(27.8%) of age group. The rest of the group (18 to 30) and (>70 years old) contributed a lesser number (11.1% and 5.6% respectively). Because Malay is the most popular ethnic group in Malaysia, they accounted for the highest (n=14, 77.8%) number of patients in the sample group, followed by Indian (n=2, 11.1%) and Chinese (n=2, 11.1%). Since AMDI, USM is a referral centre for oncology cases for the Northern region, the attendance of patients at AMDI activity centre is high compare to other centres in Penang. Most of the patients were from middle income group (n=10, 55.5%) followed by low income group (n=6, 33.3%). Only 2 participants (11.1%) were from high-income groups. The majority of those from the middle-income group were from government servants. Few professionals were among them. Maybe due to the majority of the participants were quite well educated (from secondary and tertiary education), a quiet high percentage (n=8, 44.4%) of them presented with a very early stage of cancer i.e stage 1 and 2 however, closely followed by very advanced stage (n=7, 38.9) and slightly advanced (n=3, 16.7%). Breast cancer contributed to the highest number (n=11, 61.1%) followed by colorectal (n=3, 16.7%) cervical (n=2, 11.1), nasopharyngeal (n=1, 5.6%) and others n=1, 5.6%). Table 1 shows the demographic and disease characteristics of the participants. During the analysis, three categories were identified. 1) Knowledge of MBSR, 2) Perceived MBSR effectiveness for treating anxiety and depression.

1. Knowledge of Mindfulness-based Stress Reduction (MBSR) Program

When asked about what is Mindfulness-based Stress Reduction and have you ever heard of MBSR?, majority of the patients said they have never heard about MBSR, however, few patients said that they have tried MBSR and understand MBSR from learning through on-line.

MBSR is a psychology knowledge

This patient said that she had learned MBSR in her psychology subjects and she had applied MBSR during her cancer treatment and it works. She learned MBSR online.

"I have heard about mindfulness. One of the chapters in my study was psychology where mindfulness was introduced but I never go for any course or anything. And I applied mindfulness during my chemo and its work. I learned from online." (P1, Age 33, Female, Malay, Islam, Breast cancer Stage 4).

Never heard of MBSR

The following patients claimed that they never heard of MBSR.

"I never heard of MBSR. Never practice anything related to MBSR". (P2 Age 60, Male, Chinese, Buddhism, Colon Cancer Stage 2)

"Never heard of it" (P3, Age 40, Male, Malay, Islam, Colon Cancer Stage 2)

"I don't know anything about MBSR and never heard of it" (P4, Age 35, Female, Malay, Islam, Nasopharyngeal, Stage2)

Never heard of MBSR but believe it is something to do with the mind.

Never heard of MBSR but believe it is something to do with the mind. (P18) Most of the patients claimed that they have never heard of MBSR. Since MBSR is new in Malaysia, no doubt they have never heard of it. Some of them might have utilized the MBSR component but never know the classification of MBSR.

2. Attitude toward MBSR

As far as MBSR is concern, most patients said that they utilized all sort of methods to cope with stress but the most

¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia.

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.

²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

³Unaizah College of Pharmacy, Qassim University, Saudi Arabia.



ISSN:1475-7192

regularly practised were prayers, zikir, duas, seeking spiritual help and also mentera for other religion. They seek those threatment after seeking advices from other cancer patients, family and friends. Most patients said that the decision of seeking MBSR treatment were made by them and supported by other cancer patients and family member.

Patients said that she went for MBSR after getting advice from other cancer patients.

"Ownself but after getting advice from those who had experience it".(P3)

Most patients have a positve attitude towards MBSR. They believed that cancer can be cured if it is treated early.

Patients understand that the mind is a power of healing, worth trying MBT.

"Actually after the diagnosis, to get back to our state you mind is playing a role. I applied MBT in my first chemo and it help. My chemo was not that bad when I imagine that the honey was going through my body instead of chemical. How far MBT work on you is depend on how much you belief on it. So it is worth trying"(P1)

Patients reported that he cannot give opinion on MBT because he has never tried them, but they said will give a try if offered.

"Don't know. I have never tried. Will see first. If it work why not".(P2)

"Insyaallah ok" (P3)

"If MBT is offered I will join as I belief it sure will help me in my cancer healing".(P4).

"If ok I will join".(P5).

"If it is introduced I want to try" (P6)..

"Agree to participate if it help".(P7)

3. Perceived effectiveness of MBSR for anxiety and depression

Patients have different perceptions of the effectiveness of MBSR for anxiety and depression, however, perceived MBSR is good because it is something to do with mind power. However, some of them said that they have no opinion on MBSR effectiveness.

-MBSR is a mind power of healing

Patients understand that the mind is a power of healing, worth trying MBSR.

"Actually after the diagnosis, to get back to our state, where your mind is playing a role. I applied MBSR in my first chemo and it helps. My chemo was not that bad when I imagine that the honey was going through my body instead of chemical. How far MBSR works on you depends on how much you believe in it. So it is worth trying" (P1, Age 33, Female, Malay, Islam, Breast cancer Stage 4)

-No opinion on the effectiveness of MBSR

Patients reported that he cannot give an opinion on MBSR because he has never tried them, but they said will give a try if offered.

¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia.
²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

³Unaizah College of Pharmacy, Qassim University, Saudi Arabia.

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.

^{*}Corresponding Author Email: chenoriaho@yahoo.com



ISSN:1475-7192

"Don't know. I have never tried. I will see first. If it works why not". (P2 Age 60, Male, Chinese, Buddhism, Colon Cancer".

Patients reported trying the MBSR if it is offered.

"Insyaallah ok" (P3, Age 40, Male, Malay, Islam, Colon Cancer Stage 2)

-MBSR can heal my cancer

The following patients have a positive perception of MBSR by saying she would join and believe it would help her in anxiety and depression thus cancer healing. Many of them would join if it is offered.

"If MBSR is offered I will join as I believe it sure will help me with my feeling thus my cancer healing". (P4, Age 35, Female, Malay, Islam, Nasopharyngeal, Stage2).

"If ok I will join".(P5).

"If it is introduced I want to try" (P6).

"Agree to participate if it helps".(P7)

-Worth trying MBSR. Nothing is one for ALL.

"I think worth trying. Nothing is ONE for all. Basically what we think is what we get. In general, it can help but depend on the individual how the degree of believing is inside their mind. To me MBSR helps but how far is dependent upon the individual". (P1, Age 33, Female, Malay, Islam, Breast cancer Stage 4)

-MBSR is only an effort by a human, Allah is a true healer.

Patients reported that treatment is only our effort toward healing. The true healer is Allah SWT.

"is only our effort toward healing the best. It is not us or the medicine that heel. If I believe that chemotherapy is the one that heels me is wrong. Allah is". (P1, Age 33, Female, Malay, Islam, Breast cancer Stage 4).

Patient-reported that he never go for any other treatment other than hospital treatment. However, some Muslim patients reported going for some spiritual healers.

"I never go for any other treatment only follow doctor's advice. Even some said better go for the second opinion, but to me when it is there, it will be there, I don't think the doctor would lie to me". (P2 Age 60, Male, Chinese, Buddhism, Colon Cancer Stage 2).

Many patients perceived MBSR can be good for cancer healing and worth trying. Even though they have never heard of it most of them believed that anything to do with mind power it should be beneficial.

3) Experiences of Stress coping strategy after the cancer diagnosis.

It is understood that patients diagnosed with cancer faced tremendous stress. However, every patient has their way of stress coping strategy. And this strategy is influenced by their sociodemographic, cultural and spiritual belief. Patients reported seeking for various strategies to cope with stress. Some of them went for spiritual, modern and self- therapy.

¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia.

²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

³Unaizah College of Pharmacy, Qassim University, Saudi Arabia.

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.

^{*}Corresponding Author Email: chenoriaho@yahoo.com



3.1 Spiritual therapy

-Rukyah

Patient reported that she went for *rukyah* treatment.

"I never go for traditional therapy other than rukyah". (P4, Age 35, Female, Malay, Islam, Nasopharyngeal, Stage2)

-"Air jampi" and "bedak sejuk".

Patient reported seeking for "air jampi" and "bedak sejuk" from a spiritual healer.

"I went to Perlis, he gave me bedak sejuk and air jampi". (P8, Age 25, Female, Malay, Islam, Breast Cancer Stage 4). -Zikir repetition

Patient reported performing zikir repetition and attending Mindfulness program.

I could not sleep almost for six months, a doctor gave me a sleeping pill but still could not sleep. I performed zikir until morning, this went on until I attended one mindful workshop with one trainer. After that program, I became very positive and manage to overcome my chemotherapy. (Age 60, Female, Malay, Islam, Brain cancer Stage 4).

-Prayers, read mendera.

Indian patient said that she prays, and reads mendera, make her feel relax.

"I pray, performed meditation and read mendera. I asked God to take me peacefully and I don't want to bother other people. This method helps me feel relax" (P21 Age 66, female, India, Hindu, Breast cancer stage 2).

3.2 Modern Counsellor

Patient reported going to a qualified modern counselor.

"Other than hospital treatment I received counseling from a counselor". (P5)

3.3 Seeking Friends and family support

Patients reported seeking friends and family supports.

"To me, family and friends supports are very important....first of all like many others I felt that I was going to die, I didn't think of anything else, then slowly I started to accept it."

Patient reported felt better after sharing with other cancer patients.

"Finally I could accept it after sharing with other cancer patients".(P7)

Patients reported that his family is his strong supporter. (P7)

"I have my daughter who always supports me. She said don't worry ayah, you have to be strong for your grandchildren and me...even though some people said chemo is very bad, you would be diarrhea, vomit, etc, but I said to myself, just go with it if it happens what to do...just take it".(P7)

3.4 Accept it as God's will.

¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia.
 ²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

³Unaizah College of Pharmacy, Qassim University, Saudi Arabia.

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.



Patients reported she felt so grateful because she has a strong belief in religion that kept her going strong with the disease she was suffering. She could take the disease calmly (*P1, Age 33, Female, Malay, Islam, Breast cancer Stage 4*).

"Alhamdulillah because I have religion, I believed that all the things that happen must have a reason. Because of cancer, I am offered cancer leave so I have more time with family, however, there are certain things that I need to slow down, that is a signal that I believe Allah is trying to tell me. Maybe Allah closed one door but He is opening another door for me. I believe life and death are in Allah's hands. You died not because of the disease but because it is your time set by Allah. So as long as you still live, make the best of it. This cancer also makes me closer to Him, otherwise, I would maybe forget about Him and get carried away with my life". (P1, Age 33, Female, Malay, Islam, Breast cancer Stage

-Seeking Allah's help as the disease is a faith of Allah.

The patient said that the disease was the faith of Allah since she did not have any symptoms as what the book said. (*P1*, *Age 33*, *Female, Malay, Islam, Breast cancer Stage 4*)

"I don't have anything that the book said symptom of cancer. So I figured this is a test of Allah. Allah wants to take and give what and whenever He wants. He wants to give us something else and took something out of us. The disease is only an "asbab" (causative) but life and death, sick and well are in Allah's hand". (P1, Age 33, Female, Malay, Islam, Breast cancer Stage 4).

-Accept it as a test from Allah.

"I started to accept that maybe Allah want to give me a chance to be closer to Him because I was busy with works, I am very positive, Now I almost feel that I am cancer free" (P16, Age 65, Female, Malay, Islam, Breast Cancer Stage 4)

-Take the disease likely and as a faith of God.

Patients reported he took the disease lightly as he believes that if he worries too much the disease would grow faster. (*P2 Age 60, Male, Chinese, Buddhism, Colon Cancer Stage 2*).

"Some people cannot sleep thinking of the disease. For me, life and death is our faith, I am not worried about it. If we are happy like nothing happen it will help us to live longer. Those who worry too much will die faster because cancer cell will grow faster when you are stress". (P2 Age 60, Male, Chinese, Buddhism, Colon Cancer Stage 2).

-Talking to Allah

Patients reported to rely on and talk to Allah to check back her relationship with Allah.

"...there were days when I felt really weak or not really up to the stage, I look back on my relationship with Allah, maybe I should improve here and there". (P1, Age 33, Female, Malay, Islam, Breast cancer Stage 4).

3.5 Ignorance.

Patients said that he worried about money more than his condition.

²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

³Unaizah College of Pharmacy, Qassim University, Saudi Arabia.

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.

¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia.

^{*}Corresponding Author Email: chenoriaho@yahoo.com



ISSN:1475-7192

"I had to stop working due to cancer, which made me more stressed. If I have paid maybe my stress level would be controllable. My wife helps me to reduce stress. She supported me a lot. She has a job to cover the depth". (P8, Age 25, Female, Malay, Islam, Breast Cancer Stage 4)

Many patients have faith in God and believe that whatever happened to them is with Allah's will. Those who are non-Muslim believe in praying to God to help the cancer healing. And feel better after that

Table 1:

Characteristic	Frequency N=18	Percentage%
Age (Mean=49.4 SD +/-13.1 Years old)		
18-30	2	11.1
31-40	5	27.8
41-50	1	5.6
51-60	7	38.9
61-70	2	11.1
>70	1	5.5
Gender		
Male	2	11.1
Female	16	88.9
Race		
Malay	14	77.8
Chinese	2	11.1
Indian/Sikh	2	11.1

¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia.
²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.

^{*}Corresponding Author Email: chenoriaho@yahoo.com



ISSN:1475-7192

14	77.8
2	11.1
2	11.1
2	16.7
9	50.0
6	33.3
6	33.3
10	55.5
2	11.1
3	16.7
11	61.1
2	11.1
1	5.6
1	5.6
7	38.9
3	16.7
	2 2 9 6 10 2 3 11 2 1 1 1 1 7

IV. DISCUSSION

1) Knowledge of cancer

Regarding about Mindfulness-based stress reduction program, not many of the patients have ever heard of the program, however, they claimed to practice some of Mind-Body Therapy (MBSR) like yoga, qigong, spiritual healing, praying for health and hypnotherapy. However they have never done them until to the level of mindfulness, or they never

¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia.

²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

³Unaizah College of Pharmacy, Qassim University, Saudi Arabia.

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.



ISSN:1475-7192

realized whether the mindfulness level was achieved or not due to lack of knowledge and guidance. The majority of them admit that they did the exercises without any guidance. They just joined whatever group they found doing the performance in the park or jogging area. From their claim, this study concluded that most of them have anyhow practice a certain type of MBSR exercise without guidance.

This study revealed that MBSR is not yet popular in Malaysia especially among the Muslim population even-though it has been utilized in many clinical settings all over the world (Kabat-Zinn, 2003). MBSR was proven to reduce the cancer symptom among breast cancer patients and seems to be a promising alternative for the treatment of this disease's symptoms (Castanhel & Liberali 2018): (Bohlmeijer et al., 2010). Infect, the use of MBSR in Oncology setting have started way back before 2005, (Kabat-Zinn, 2003).

Considering the effect of cancer on one's life is so distracting and disrupting and the current setting of Malaysian Health Care doesn't provide enough psychological supports for cancer patients it is suggested that for our health care system to appreciate MBSR as one of the modules to imbed into the current conventional treatment since it has been proven effective to overcome the stressful event. The physical symptoms or functional losses resulting from the disease or its treatment can lead to significant symptoms of depression and anxiety. MBSR approach can help cancer patients cope with these stresses.

Since many shreds of evidence provide a constant supports on the effectiveness of MBSR for a significant reductions in stress, anxiety, depression, and sleep difficulties and improvements in behavioural and cognitive coping, emotional stability, and quality of life in many clinical setting all over the world (Speca, et al., 2014), this study would like to suggest that MBSR should be incorporated into the conventional approach of cancer treatment in Malaysia.

2. Attitude toward MBSR.

Regarding about Mindfulness-based stress reduction program, not many of the patients have ever heard of the program, however, they claimed to practise some of the mindfulness-based exercises like yoga, qigong, spiritual healing, praying for health and hypnotherapy. However, they said that the MBSR alone cannot work. It should be complement with modern treatment. They believed that MBSR is good for mental strength. Patients followed the doctors' suggestion and follow the treatment schedule successfully. They were very committed to come for the treatment and believe that the disease was going to heal. When asked whether they would participate in the Mindfulness program if introduced? , some of them would like to give a try since they believed that anything to do with a mind would help them to heal, at least reduce their stress.

However they have never done them until to the level of mindfulness, or they never realised whether the mindfulness level was achieved or not due to lack of knowledge and guidance. Majority of them admit that they did the exercises without any guidance. They just joined whatever group they found doing the performance in the park or jogging area. From their claims, this study concluded that most of them have anyhow practice a certain type of MBSR exercise without guidance. This study revealed that MBSR is not yet popular in Malaysia especially among Muslim population even though it has been utilized in many clinical setting all over the world (Kabat-Zinn, 2003).

MBSR was proven to reduce the cancer symptom among breast cancer patients and seems to be a promising alternative for the treatment of this disease's symptoms (Castanhel & Liberali 2018) (Reichi, et al., 2017). In fact, the use of MBSR in Oncology setting have started way back before 2005, (Kabat-Zinn, 2003): Mindfulness-Based Stress Reduction (MBSR) in Oncology," n.d.). Since the diagnosis of cancer is extremely stressful, causes fears about the future, and the

¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia.

²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

³Unaizah College of Pharmacy, Qassim University, Saudi Arabia.

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.



disruptions in important relationships and daily routines, it is eminent for our health care system to include MBSR as one of the modules to imbed into the current conventional treatment since it has been proven effective to overcome the stressful event.

The loss or reduction of physical capabilities from the disease and the led to anxiety and depression proved by many works of literature (Speca, et al., 2014). MBSR approach can help cancer patients cope with these psychological disorders thus increase their QoL.

3) Perceived effectiveness of MBSR for anxiety and depression.

Most of the patients have a positive attitude toward MBSR. They believed that cancer they were suffering could be cured by the treatment they received. However, they did not reject Mind-body therapy as some of them were practising them. However they said that the MBSR alone cannot work, it should be complemented modern treatment. They believed that MBSR is good for mental strength. Not much information on the perception of cancer patients toward MBSR found after 2012.

The articles on the effect of MBSR on cancer patients are numerous during the earlier years. (Lengacher et al., 2012) (Kieviet et al., 2008), however, the study on the effect of MBSR on cancer patients was not conducted anymore in the well-established country, maybe MBSR is not new anymore to them. It has been accepted as one of the modality to treat various types of chronic diseases including cancer.

An extensive systematic electronic review (PubMed, Embase, CINAHL, PsyArticles, PsycINFO, Scopus, Ovid, Web of Science and The Cochrane Library) shows a moderate to large positive effect size on the mental health of breast cancer patients and warrants further systematic investigation. Base on this statement our study suggested that MBSR should be utilized in our setting since it is accepted worldwide and proven to be effective.

Another meta-analysis on 187 reviews comparing waitlist and treatment groups of MBSR/MBCT showed a significant improvement in the anxiety and depression symptom, the quality of life, and physical functioning. The evidence supports the use of MBSR and MBCT to alleviate symptoms, both mental and physical, in the adjunct treatment of cancer, depression, anxiety disorders adults and children (Rinske A. et al., 2015).

However, MBSR is not yet well explored in Malaysia. Even though it was brought to Malaysia in 1997, in 2012 only MBSR was started in the clinical setting in a private hospital. However, it is not yet utilized in the government hospital as part of the standard of care for any type of disease including anxiety and depression among cancer patients.

When asked whether they would participate in the Mindfulness program if introduced? Some of them would like to give a try since they believed that anything to do with the mind would help them to heal, at least reduce their stress. The agree to participate in MBSR is presumed in a study made by Sheila et al., where they found out that those who agreed to participate were patients who are searching for a better understanding in the meaning of life (http://onlinelibrary.wiley).

As far as MBSR is concerned since they believed that it has no side effect, they said it is worth trying. Since MBSR is related to mind, they perceived MBSR can reduce their anxiety and depression thus heal their cancer because they believe that stress, in the long run, could initiate cancer progression. Stress also would slow down the healing process and retard the treatment effectiveness.

Most of them believed that traditional therapy wouldn't help much. They perceived modern treatment as effective and would heal their cancer. Some of them did go for spiritual healers like "Ustaz" and asking for "air jampi" for Muslim

¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia.

²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

³Unaizah College of Pharmacy, Qassim University, Saudi Arabia.

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.

^{*}Corresponding Author Email: chenoriaho@yahoo.com



ISSN:1475-7192

patients. Most of them practising prayers for health like reciting Holy Quran, perform "*zikir*" and "duas". As for Buddhism, they too believed in God and asked for God's help to heal their cancer. They practised praying in the temple. As for Hinduism, some of them practice "*menderas*".

All of them claimed that spiritual practices made them feel less stress, less anxious, and less depressed. This is in line with the article in the Indian Journal of palliative care by Satija et all stated that the mind-body practised is one of the acceptable therapy for symptomatic relief in cancer patients. The mind-body practise includes some spiritual activities as claimed by the patients in our study (Satija & Bhatnagar, 2017).

4) Stress coping strategy on the cancer diagnosis

Some patients claimed that the relationship with the creator is important in that critical period. As for Muslim patients, they took the disease as a test from Allah and feel thankful to Allah for alerting them. They said the disease has limited them to do many things they like but they are very positive by saying that Allah closed one door but open many other doors for them. As for those who used to be very busy with work now have more time with family. Their spouse also seems to show more cares on them compared to before.

All these supported them from being stress. Some of the patients said that the disease itself did not stress them that much as they took it as faith from Allah but, because of the disease they could not work anymore and rely on their spouse for all money burden. This is the most sources of stress and made them feel very worried and depress. They reported talking to Allah was the best remedy.

For Buddhism and Hinduism practising yoga, meditation, jogging and going out a lot diverted their thought about their disease. Some of them like to talk to people about their disease and get their opinion, but many prefer to keep it to themselves as they believe nobody can help them except they help themselves to be positive and strong. Talking to friends sometime may worsen the feeling.

Cancer patients are poly-symptomatic. Even though conventional management supported them with adequate symptom control but there must be some limitation to fulfil every single need of the patient emotionally. Complementary therapy especially spiritual intervention has demonstrated a positive role in the patient's quality of life and overall well-being (Satija & Bhatnagar, 2017).

Family support too is very important. One of the patients said that, his daughter that keep him going. He wanted to live for her. His spirit is strong with his daughter's help. One of the patients who is not married relied on her niece to look after her. But she still worries, if things going to go worsen, she has no children to look after and she all the time prays that if she were going to die let her die quickly before she couldn't handle herself anymore. She admits family support is important. This finding is supported by Ng et al 2011, who conducted a study on 400 Malaysian breast cancer patients in Malaysia, stated that family members could be supportive especially in decision making and emotional supports for cancer patients. Many articles found to be supportive of our findings. (Muhamad Mazanah et al., 2011: Arving C. et al., 2013: Al-Bahri, Al-Moundhri, & Al-Azri, 2017: La Yeonavana et al., 2018.

Financial lack is another issue that made them stress, but help like charity organization like MAKNA made them feel more secured. They hope more help would come during they are in need. The financial issues among cancer patients and cancer survivors are common worldwide. Supportive articles suggested to establish a financial assistance program for cancer patients in line with the result found in this study (Pisu, et al. 2014 : Zullig et al. 2017). Furthermore, financial distress was found to be associated with a lower level of adherent to medication (Zullig et al., 2013) and non-coping of "financial toxicity" leads to poor health outcome in cancer patients (Carrera, Kantarjian, & Blinder, 2018) and quality of life (Lathan CS. et al., 2016).

Talking to Hospital staff also made them feel comfortable with the treatment. They claimed that the doctors and nurses were very kind to them and always be there to support them. They feel like home when they were at the hospital. The nice doctors and nurses made them feel more confident with the treatment. This finding supported many studies before

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.

¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia.

²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

³Unaizah College of Pharmacy, Qassim University, Saudi Arabia.



stated that staff patient's relationship is very important to ascertain the patients' comfort. The caring behaviours among staff are important to patients' anxiety and depression (Pasquini & Biondi, 2007).

They claimed using different kinds of strategies to divert their thought on their diseases. They went out a lot for shopping, doing charity work and talking to friends. No doubt some keep the disease to themselves as they felt that talking to the wrong person might worsen the feeling. Studies worldwide shown various king of coping strategies for anxiety and depression among cancer patients.

Getting involved in the daily activities when they are at the fit level also helps them to keep the phase going smoothly. Some of them went for jogging even though not as frequent as before, practised yoga and meditation, and seeking spiritual healers. Not many were referred to the psychologist by their doctors may be the doctors don't take their condition as "needed to be treated".

As conclusion patients practice a certain type of mind-body therapy (MBSR) to cope with their stress, anxiety, and depression. However, nobody ever measures whether the practices were effective enough to treat their condition. However, most of the patients said that they felt better after doing that but the symptom did not fully go. Sometimes they did felt very down and need supports mentally and physically beside finances. Some studies showed a positive effect on mind-body practice for anxiety and depression. However, the intervention used was a standard validated protocol for clinical research (Khoshnood et al., 2018).

The method of stress coping among cancer patients is in line with the finding by a study on a group of catholic cancer patients who presented good quality of life and high use of Religious-Spiritual Coping (Matos et al., 2017). A study conducted on Muslim cancer patients revealed that religious belief and spirituality help them to search for the meaning of life and facilitate them to make sense of their illnesses (Ahmadi et al., 2019) to challenge and overcome the negative experiences they face, also depend on the quality of life of the patients (Benjamin et al 2018). However coping strategies among patients with cancer is different depending on the stage of cancer, type of therapy, the individual's culture, and perceptions about the disease (Sepidah H, et al., 2017).

Several studies indicated how particular coping strategies, such as emotional expression (Esser et al., 2017) positive reappraisal as well as positive thinking (Ruthig & Holfeld, 2016; Silva, Crespo, & Canavarro, 2012) social support (Khoshnood et al., 2018) and religious rituals (Prouty, Ward-Smith, & Hutto, 2006) are beneficial to the emotional and physical well-being of cancer patients in general. A majority of patients used optimism, acceptance of reality, efforts towards treatment, seeking social support, self-distraction, and intentional absent-mindedness, escape and avoidance, and self-control to adapt to cancer (Aminisani et. al., 2017). The results found in this study supported the previous finding.

V. CONCLUSION

This qualitative exploration concluded that patients are still lacking in knowledge about cancer. However, they take cancer very positively. Patients showed a very positive attitude toward the treatment they received and believed that it would cure their cancer. They complied and followed the doctor's instructions. Most of them experience stress. However, the majority of them used their way of stress coping and they claimed it works part of it. But sometimes they admitted being so down and needed supports. They used various methods to overcome stress like spiritual, socialization, exercises and mind-body therapy. But up to this stage, there is no standard method identified for them for their stress coping.

Some of them have utilized MBSR and some sort of Mind-Body Therapy, but they have never been guided to use them properly. Many of them agreed to participate in MBSR program if introduced and believed that MBSR would reduce their anxiety and depression thus their cancer as they perceived something to do with mind rehabilitation is good for health.

 ¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia.
 ²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.

^{*}Corresponding Author Email: chenoriaho@yahoo.com



Some barriers limit them to assess the treatment comfortably, but they tried hard to comply with the treatment by seeking supports from family and friends. NGO like MAKNA helps but not all.

This study also revealed that patients have a different opinion on cancer and the treatment they received. However, the majority of them perceived cancer is a growth, needs to be taken out and can cause death. They said that cancer can be cured however believed that conventional therapies in combination with T&CM like MBSR may work best.

Patients were from various socioeconomic statuses. The way they perceived cancer and its treatment effectiveness go along with their education level. Those with higher education levels can describe cancer in a bit detail compare to those of a lower academic status. This study concluded that knowledge of cancer is related more toward their education status rather than the cultural or religious background. Patients with a low level of education tend to understand cancer lightly and take them more easily compare to those with a higher level of education. Few patients with a lower level of education seemed to understand cancer wrongly such as cancer is an infection caused by bacteria.

Most of them believed that the conventional treatment they received can cure their cancer and agreed that Mind-Body Therapy such as MBSR may help in the disease healing but have to be in combination with the modern treatment.

Most patients understand the treatment they received well. This is shown when they managed to describe in detail the procedures performed on them and what the treatment was for. Maybe this was due to the doctors and nurses and other medical team relationship with patients are good and they did a successful role in explaining the procedure and the medicine the received to the patients before any treatment were introduced.

Regarding about Mindfulness-based stress reduction program, not many of the patients have ever heard of the program, however, they claimed to practice some of Mind-Body Therapy (MBSR) without any guidance. This study revealed that MBSR is not yet popular in Malaysia especially among the Muslim population.

When asked about how they came to know about their cancer diagnosis. The majority of the patients detected the symptom themselves. There were cases of misdiagnosed by the doctors even though the patients never miss seeing the doctor as scheduled but for other diseases.

Most of the patients have a positive attitude toward cancer they were suffering. They believed that cancer could be cured by the treatment they received. However, they did not reject Mind-body therapy as some of them were practising them. However, they said that the MBSR alone cannot work. It should be complement with modern treatment. They believed that MBSR is good for mental strength.

The majority of them agreed to participate in the Mindfulness program if introduced. Some of them would like to give a try since they believed that anything to do with the mind would help them to heal, at least reduce their stress.

As for stress coping strategies, regardless of religion, most patients claimed that the relationship with the creator is important in a critical period. As for Muslim patients, they took the disease as a test from Allah and feel thankful to Allah for alerting them. As for Buddhism and Hinduism, they performed prayers in their way. Some of them like to talk to people about their disease and get their opinion, but many prefer to keep it to themselves as they believe nobody can help them themselves to be positive and strong. Talking to friends sometime may worsen the feeling.

Money is the major barrier encountered by most patients, other than family support and afraid of hospital stay for them to regularly go for check-up and treatment.

More education programs should be introduced for cancer patients. A cancer support group should be given the responsibility to educate the patients to be more positive in handling emotional strength. It should be understood that MBSR is a good program and can help them with stress coping. Stress if handled properly can produce a positive

¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ²School of Pharmacourical Sciences, Universiti Science Malaysia, 11900 Pulau Pinang, Malaysia.

 ²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.
 ³Unaizah College of Pharmacy, Qassim University, Saudi Arabia.

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.

^{*}Corresponding Author Email: chenoriaho@yahoo.com



ISSN:1475-7192

clinical outcome. A proper counselling program should be introduced in Cancer care to cater to the anxiety and depression issue among cancer patients. This program should be introduced in the earlier part of cancer diagnosis, not just after they survived cancer.

As a conclusion, our study found out that, the patients still need a lot of support from the health care team in terms of physical and psychological wellbeing. They need supports from the NGOs for socioeconomic status. The health care team and the caregivers should coordinate in delivering enough knowledge for the patients so that they are expecting the positive and negative circumstances as a cancer patient.

This study is a qualitative exploration. It cannot represent or conclude the whole cancer patients in Penang. However, this study continued into the quantitative part where data were collected from a calculated sample size which is more representative.

Limitation.

This study was enrolled at MAKNA activity centres. The majority of the active participants were Malay and Female patients. So we don't have a very fair distribution of sex even though the fair distribution was seen in ethnic groups. **Acknowledgment.**

We would like to acknowledge all cancer patients who have supported this study.

REFERENCES

- Ahmadi, F., Mohamed Hussin, N. A., & Mohammad, M. T. (2019). Religion, Culture and Meaning-Making Coping: A Study Among Cancer Patients in Malaysia. *Journal of Religion and Health*. <u>https://doi.org/10.1007/s10943-018-0636-9</u>
- 2) Al-Bahri, A., Al-Moundhri, M., & Al-Azri, M. (2017). The role of patients families in cancer treatment decision making. *Sultan Qaboos University Med Journal*. <u>https://doi.org/10.18295/squmj.2017.17.04.001</u>
- Allen, N. B., Chambers, R., Knight, W., Blashki, G., Ciechomski, L., Hassed, C., ... Meadows, G. (2006). Mindfulness-based psychotherapies: A review of conceptual foundations, empirical evidence and practical considerations. *Australian and New Zealand Journal of Psychiatry*, 40(4), 285–294.
- 4) Alhusban, R. Y. (2019). Changed Body Image as Perceived by Jordanian Women Undergoing Breast Cancer Treatment. Asian Pacific Journal of Cancer Prevention, 20(3), 767–773. https://doi.org/10.31557/APJCP.2019.20.3.767
- 5) Aminisani, N., Nikbakht, H., Jafarabadi, M. A., & Shamshirgaran, S. M. (2017). Depression, anxiety, and health related quality of life among colorectal cancer survivors. *Journal of Gastrointestinal Oncology*. https://doi.org/10.21037/jgo.2017.01.12
- 6) Arving C, Thormodsen I, Brekke G, Mella O, Berntsen S and Nordin, K. (2013). Early rehabilitation of cancer patients a randomized controlled intervention study. *BMC Cancer*.
- 7) Barre, P., Padmaja, G., Rana, S., & Tiamongla. (2018). Stress and quality of life in cancer patients: Medical and psychological intervention. *Indian Journal of Psychological Medicine*. https://doi.org/10.4103/ijpsym.ijpsym 512 17

¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

³Unaizah College of Pharmacy, Qassim University, Saudi Arabia.

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.

^{*}Corresponding Author Email: chenoriaho@yahoo.com



- 8) Benjamin Saunders, Julius Sim, Tom Kingstone, Shula Baker, Jackie Waterfield, Bernadette Bartlam,¹ Heather Burroughs, and Clare Jinks (2018). Saturation in qualitative research: exploring its conceptualization and operationalization.
- 9) Bohlmeijer, E., Prenger, R., Taal, E., & Cuijpers, P. (2010). The effects of mindfulness-based stress reduction therapy on mental health of adults with a chronic medical disease: A meta-analysis. *Journal of Psychosomatic Research*. <u>https://doi.org/10.1016/j.jpsychores.2009.10.005</u>
- Carrera, P. M., Kantarjian, H. M., & Blinder, V. S. (2018). The financial burden and distress of patients with cancer: Understanding and stepping-up action on the financial toxicity of cancer treatment. *CA: A Cancer Journal for Clinicians*. <u>https://doi.org/10.3322/caac.21443</u>
- 11) Castanhel, F. Del, & Liberali, R. (2018). Mindfulness-Based Stress Reduction on breast cancer symptoms: systematic review and meta-analysis. *Einstein (Sao Paulo, Brazil)*. https://doi.org/10.31744/einstein_journal/2018RW4383
- 12) Chadi, N., Ringwald, J., Compen, F. R., Bisseling, E. M., Schellekens, M. P. J., Jansen, E. T. M., Speckens, A. E. M. (2017). Mindfulness-Based Cognitive Therapy for Cancer Patients Delivered via Internet: Qualitative Study of Patient and Therapist Barriers and Facilitators. *Journal of Medical Internet Research*. <u>https://doi.org/10.2196/jmir.7783</u>
- 13) Phang, C. K., Mukhtar, F., Ibrahim, N., & Mohd. Sidik, S. (2016). Mindful Attention Awareness Scale (MAAS): factorial validity and psychometric properties in a sample of medical students in Malaysia. *Journal* of Mental Health Training, Education and Practice. <u>https://doi.org/10.1108/JMHTEP-02-2015-0011</u>
- 14) Phang, K. C., Keng, L. S., & Chiang, C. K. (2014). Mindful-S.T.O.P.: Mindfulness Made Easy for Stress Reduction in Medical Students. *Education in Medicine Journal*, 6(2). <u>https://doi.org/10.5959/eimj.v6i2.230</u>
- 15) Esser, P., Kuba, K., Götze, H., & Mehnert, A. (2017). Long-term effects and psychological adjustment: Study protocol of a large register-based study on quality of life among survivors of hematological malignancies. *BMC Cancer*. https://doi.org/10.1186/s12885-017-3454-7
- 16) Hee, K. L., Norsiah, R., Pathmawathi, S., & Phang, C. K. (2013). The effects of mindfulness training program on reducing stress and promoting well-being among nurses in critical care units. *Australian Journal of Advanced Nursing*, 31(3), 22–31. Retrieved from http://www.voced.edu.au/content/ngv64306
- 17) Lathan CS, Cronin A, Tucker-Seeley R, Zafar SY, Ayanian JZ and Schrag D (2016). Association of financial strain with symptom burden and quality of life for patients with lung or colorectal cancer. *Journal of Clinical Oncology*. https://doi.org/10.1200/JCO.2015.63.2232

¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia.
²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

³Unaizah College of Pharmacy, Qassim University, Saudi Arabia.

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.

^{*}Corresponding Author Email: chenoriaho@yahoo.com



ISSN:1475-7192

- 18) Khoshnood, Z., Iranmanesh, S., Rayyani, M., & Dehghan, M. (2018). Body-mind healing strategies in patients with cancer: A qualitative content analysis. *Asian Pacific Journal of Cancer Prevention*. https://doi.org/10.22034/APJCP.2018.19.6.1691
- 19) Sepideh Hajian, Esmat Mehrabi, Masoomeh Simbar, Mohammad S (2017). Coping Strategies and Experiences in Women with a Primary Breast Cancer Diagnosis. (n.d.).
- 20) http://www.klbmha.com/category/mindfulness
- 21) (http://www.moh.gov.my)
- 22) http://onlinelibrary.wiley. Mindfulness: A Proposed Operational Definition Bishop 2006 Clinical Psychology: Science and Practice Wiley Online Library. (n.d.). Retrieved from http://onlinelibrary.wiley.com/doi/10.1093/clipsy.bph077/abstract
- 23) Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, 10(2), 144–156. <u>https://doi.org/10.1093/clipsy/bpg016</u>
- 24) Khoshnood, Z., Iranmanesh, S., Rayyani, M., & Dehghan, M. (2018). Body-mind healing strategies in patients with cancer: A qualitative content analysis. *Asian Pacific Journal of Cancer Prevention*. https://doi.org/10.22034/APJCP.2018.19.6.1691
- 25) Lengacher, C. A., Reich, R. R., Post-White, J., Moscoso, M., Shelton, M. M., Barta, M., Budhrani, P. (2012). Mindfulness based stress reduction in post-treatment breast cancer patients: An examination of symptoms and symptom clusters. *Journal of Behavioral Medicine*. <u>https://doi.org/10.1007/s10865-011-9346-4</u>
- 26) Laryionava, K., Pfeil, T. A., Dietrich, M., Reiter-Theil, S., Hiddemann, W., & Winkler, E. C. (2018). The second patient? Family members of cancer patients and their role in end-of-life decision making. *BMC Palliative Care*. <u>https://doi.org/10.1186/s12904-018-0288-2</u>
- 27) Matos, T. D. de S., Meneguin, S., Ferreira, M. de L. da S., & Miot, H. A. (2017). Quality of life and religiousspiritual coping in palliative cancer care patients. *Revista Latino-Americana de Enfermagem*. <u>https://doi.org/10.1590/1518-8345.1857.2910</u>
- 28) Muhamad Mazanah, Mojgan, A., & Fitrisehara, K. (2011). Family support in cancer survivorship. Asian Pacific Journal of Cancer Prevention: APJCP, 12, 1389–1397. Retrieved from <u>http://www.ncbi.nlm.nih.gov/pubmed/22126470</u>
- 29) Ng, C. G., Mohamed, S., See, M. H., Harun, F., Dahlui, M., Sulaiman, A. H., ... Taib, N. A. (2015). Anxiety, depression, perceived social support and quality of life in Malaysian breast cancer patients: a 1-year prospective study. *Health and Quality of Life Outcomes*. https://doi.org/10.1186/s12955-015-0401-7
- 30) Nikbakhsh, N., Moudi, S., Abbasin, S., & Khafri, S. (2014). Prevalence of depression and anxiety among cancer patients. *Caspian Journal International Medical*.
- 31) Pasquini, M., & Biondi, M. (2007). Depression in cancer patients: A critical review. *Clinical Practice and Epidemiology in Mental Health*. <u>https://doi.org/10.1186/1745-0179-3-2</u>
- 32) Pisu, M., Martin, M. Y., Shewchuk, R., & Meneses, K. (2014). Dealing with the financial burden of cancer: perspectives of older breast cancer survivors. *Supportive Care in Cancer*. <u>https://doi.org/10.1007/s00520-014-2298-9</u>

¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia.

²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

³Unaizah College of Pharmacy, Qassim University, Saudi Arabia.

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.

^{*}Corresponding Author Email: chenoriaho@yahoo.com



- 33) Prouty, D., Ward-Smith, P., & Hutto, C. J. (2006). The lived experience of adult survivors of childhood cancer. *Journal of Pediatric Oncology Nursing*. <u>https://doi.org/10.1177/1043454206287295</u>
- 34) Reich, R. R., Lengacher, C. A., Klein, T. W., Newton, C., Shivers, S., Ramesar, S., Kip, K. E. (2017). A Randomized Controlled Trial of the Effects of Mindfulness-Based Stress Reduction (MBSR[BC]) on Levels of Inflammatory Biomarkers Among Recovering Breast Cancer Survivors. *Biological Research for Nursing*. <u>https://doi.org/10.1177/1099800417707268</u>
- 35) Rinske.A., G., P., C., J.J.V., B., H., B., G.L., F., & M.G.M., H. (2015). Standardised mindfulness-based interventions in healthcare: An overview of systematic reviews and meta-analyses of RCTs. *PLoS ONE*.
- 36) Ruthig, J. C., & Holfeld, B. (2016). Positive Thinking and Social Perceptions of a Male vs. Female Peers Cancer Experience. *Journal of Social Psychology*. https://doi.org/10.1080/00224545.2015.1052361
- 37) Satija, A., & Bhatnagar, S. (2017). Complementary therapies for symptom management in cancer patients. *Indian Journal of Palliative Care*. <u>https://doi.org/10.4103/IJPC.IJPC_100_17</u>
- 38) Silva, S. M., Crespo, C., & Canavarro, M. C. (2012). Pathways for psychological adjustment in breast cancer: A longitudinal study on coping strategies and posttraumatic growth. *Psychology and Health*. <u>https://doi.org/10.1080/08870446.2012.676644</u>
- 39) Shennan, C., Payne, S., & Fenlon, D. (2011). What is the evidence for the use of mindfulness-based interventions in cancer care? A review. *Psycho-Oncology*, 20(7), 681–697. <u>https://doi.org/10.1002/pon.1819</u>
- 40) Speca, M., Carlson, L. E., Mackenzie, M. J., & Angen, M. (2014). Mindfulness-Based Cancer Dolan, N. C., Lee, A. M., & McDermott, M. M. G. (1997). Age-related differences in breast carcinoma knowledge, beliefs, and perceived risk among women visiting an academic general medicine practice. *Cancer*. <u>https://doi.org/10.1002/(SICI)1097-0142(19970801)80:3<413::AID-CNCR9>3.0.CO;2-S</u>
- 41) Zullig, L. L., Wolf, S., Vlastelica, L., Shankaran, V., & Yousuf Zafar, S. (2017). The role of patient financial assistance programs in reducing costs for cancer patients. *Journal of Managed Care and Specialty Pharmacy*. <u>https://doi.org/10.18553/jmcp.2017.23.4.407</u>
- 42) Zullig, L. L., Peppercorn, J. M., Schrag, D., Taylor, D. H., Lu, Y., Samsa, G., Zafar, S. Y. (2013). Financial Distress, Use of Cost-Coping Strategies, and Adherence to Prescription Medication Among Patients With Cancer. *Journal of Oncology Practice*. https://doi.org/10.1200/jop.2013.000971

¹Faculty of Pharmacy, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia.

²School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

⁴Faculty of Allied Health Sciences, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Bertam, 13200 Pulau Pinang, Malaysia. ⁵Psychiatric Department, Sunway Medical Center, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia.

^{*}Corresponding Author Email: chenoriaho@yahoo.com