Assessing Eating Disorder and Stress amongst Dancers: Case Study in Malaysia

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Abstract — Art industries related with creativity and beauty. However, it affects the person mentally and physically especially among dancers. Eating disorder and stress is not a new issue among dancer but often becomes a hot issue among scholars and practitioners. Hence, in this research, it is important to identify the relationship between stress and eating disorder among dancer in Malaysia. 157 dancers involved in this study quantitatively in which using survey as a main technique. In analyzing information obtained, descriptive and Pearson Correlation Coefficient has been chosen. As a result, the connection between eating disorder and stress among dancer is high. It can be concluded that 157 dancers need to seek help from dietitian and psychiatrist to help them improving their nutrition and good mental health.

Keywords — Eating Disorder, Stress, Dancer, Relationship, Malaysia.

I. INTRODUCTION

Eating is a part of our biological needs, and as a human being, we must eat to continue our lives. However, according to American Psychiatric Association (2006), eating disorders are a group of possibly fatal conditions where people experience severe difficulties with their eating, which affect them physically and emotionally [1]. People having an eating disorder is neither everyday life choice, a ‘diet gone wrong’, nor attempt to get attention [2]. A person with an eating disorder has a mental health state [3].

Nowadays, people really put emphasis on their look and their presence, thus, because of this preference, it can cause body dissatisfaction to some people especially young women [4]. They will become more perfectionist in all parts of their personality especially their body [5]. Eating disorders are eating behaviors that threaten an individual’s physical and psychosocial health. They include Anorexia Nervosa, Bulimia Nervosa, and Binge Eating Disorder (BED) [6]. According to expert, eating disorder is a serious potentially fatal condition, and most individuals with an eating disorder need psychological treatment or physical health treatment such as nutritional advice to encourage recovery [7].

Moreover, eating disorders are serious public health problem among college students [8]. Therefore, based on National Eating Disorders Association (NEDA) (2013), there has been rising of undergraduates females and males diagnosed with Anorexia Nervosa, Bulimia Nervosa, and Binge Eating Disorders in the previous year’s [9]. The rise in eating disorder rates has called to consideration the need for prevention and knowledge programs in high schools [10]. Disordered Eating Behaviors (DEB) are abnormal eating attitudes and behaviors which have much in common with diagnosed eating disorders [11]. These can have serious consequences which relate to depression, substance abuse, suicidal behaviors, social isolation and which may develop into an eating disorder [12].

II. LITERATURE REVIEW

ED can be defined as eating habits that are hurtful to an individual [13]. They revolve around issues with food and weight and are experienced by men as well as women [14]. They do not differentiate between gender, class, and race or age because ED can happen to anyone. Despite common belief, an eating disorder is not merely based on food, or on the desire to be thinner, but there are many contributing causes that lead to the beginnings of an eating disorder, including sense “out of control” in one’s life, feeling anxious or depressed, sexual abuse, genetic predisposition, family emotional problems, a high need for perfectionism, media and peer pressure [15].

Moreover, ED frequently happens with other psychiatric disorders such as depression, substance abuse, and anxiety disorders [16]. In addition, people who suffer from ED can experience a wide range of physical health complications, including severe heart conditions and kidney failure which may lead to death. Recognition of ED as real and curable diseases, therefore, is critically important [17]. ED are complex psychiatric syndromes in which cognitive distortions related to food and body weight and disturbed eating patterns can lead to significant and potentially life threatening medical and nutrition complications [18]. Furthermore, eating disorder also occur among dancer. There are various of study found that there are high prevalence of eating disorder among dancer. Below are the past research that discussing about eating disorder among dancer.

According to [19], ED are common among dancer. The aim of the study is to systematically compile and analyses the rates of ED in dancers. The dancer group had higher mean scores on the EAT-26 and the Eating Disorder Inventory subscales. Generally, dancer had a higher risk of suffering from ED, anorexia nervosa and EDNOS, but no higher risk of suffering from bulimia nervosa. The study concluded that as dancers had a three times higher risk of suffering from ED, particularly anorexia nervosa and EDNOS, specifically designed services for this population should be
The effects of [21] exposed that 2.7 of 10 dancers in the group screened positive for the tendency for an eating disorder. Almost half of the students that had been interviewed were currently struggling, or had previously suffered, with an eating disorder. The dancers here are suffering from different degrees of both distorted body image and disordered eating behaviors[22]. Their experience may be direct or indirect through seeing friends suffer. Consequently, the students themselves started a support group to help educate each other about the dangers of ED [23].

According to [24] found that dance is a high risk activity for ED. It seems that there is a lack of research that focused on the study of ED risk among dance genres. The results is, ballet dancers showed higher scores in items related to eating problems compared to others genres. Modern dancers revealed a low concern of having fat body areas and they scored the lowest in diet habits. Contrary to expectations, the most concerned about having fat body parts were flamenco dancers. It concludes that, the massive majority of dancers with moderate and high risk of ED belonged to ballet and flamenco [25].

Stress is a condition of tension (mental or physical or both) which results in emotional loss and pain according to dictionary of psychology [26]. In today’s world, stress is considered as any sort of physical hardship, torture and pain in an individual’s personal or professional life. Stress can change the attitudes, behaviors and thoughts of people. It affects their efficiency and ability to make decisions. Stress exists in all families, organizations and workplaces [27]. Stress is not necessarily harmful: mild forms of stress can motivate and energise you. Slightly increased stress levels may make you more alert and motivated to do your work. However, if your stress level is too high then it can cause difficulties, including impairing your ability to prepare for and perform during exams [28].

Stress manifests itself as a physical, psychological or social dysfunction resulting in individuals feeling unable to bridge the gap with the requirements or expectations placed upon them. Pressures may have many different causes. When their combined effect is overwhelming, stress occurs. Stress is not good for you, indicating an unhealthy state of body or an unhealthy stage of mind, or both [29]. For many years, people have referred to the ‘flight or fight’ as a stress response. But flight or fight is a one-off reaction to a perceived challenge or pressure. As such, it is a safety mechanism, ensuring the individual is alerted to possible threats and allowing them to take evasive action [30]. However, continually being in this state means that the body chemicals associated with fight or flight are constantly being stimulated. The result is imbalance, creating ill health of one type or another and this is can be diagnosed as stress [31].

Dance is a physically demanding activity, which makes life highly stressful for dancers and those training to become professionals. Dance is an art that combines athleticism with artistry. The demands placed on dancers’ lower extremities leave them at risk for musculoskeletal injuries. In sport, it is understood that stress plays a key role in injury risk [32]. A similar concern is now being addressed in regard to dance. Injuries, psychological stress, and perfectionism were examined in three groups of young elite performers: ballet dancers, modern dancers, and artistic gymnasts. Similar to the adult population, a high incidence of injury was found for all three groups. Results revealed a greater number of hip injuries in young ballet dancers and gymnasts than typically found in the adult population [33]. Injuries can have profound negative consequences on the health and performance of young dancers and gymnasts. Performance and training demands on these two groups are often substantial in the teen years and leave them vulnerable to injury. Typically, dancers endure overuse injuries whereas gymnasts tend to suffer slightly more traumatic injuries [34]. Although it is difficult to compare injury incidence across groups and studies because of the differences in injury reporting and definition, it is clear that the young elite female dancer and gymnast are at high risk for injury. For example, injury rates per 100 participant seasons range from 12.88 to 1,375.79 for young gymnasts. For young dancers, incidence of injury has been reported to be as high as 161.52 and 33610 per 100 participant seasons [35].

III. METHODOLOGY

3.1 Quantitative Study

In this segment, the researcher described about research instrumentation that has been used in this study. Meanwhile, in completing quantitative research, the questionnaire has been applied which adapted and adopted from various studies conducted in developed and developing countries.

Consequently, the questionnaires have been reorganized in order to conduct the quantitative research. This questionnaire consisted of five sections which are Section A for Respondent’s Profile (Gender, Age, Level of Education, Height, Weight and so on), Section B for Eating Attitudes Test (EAT-26) which has 26 items. This questionnaire was using Likert Scale of 4 which is 3= Always, 2= usually, 1= rarely, and 0= Never. Next, Section C for Open Ended Question consists of 3 items for eating disorder part, Section D is for Stress Questionnaire, which has 25 items, and Section E for Open Ended Question consists of 3 items for stress part.

This questionnaire be composed of three pages with 12 points of Times New Roman font for the respondent’s easy reference [36] which includes 76 questions. It is important to note that, the questionnaire was presented in English as the first language for the participants and was used for data collection. This is due to the fact that the respondents for this study were among university student. In this regard, the researcher is in the view that English is the most appropriate language because ASWARA’s students have fulfilled the requirements in English proficiency. In addition, it will be easier for the
respondent to gain better understanding of some terms, which are best delivered in English instead of Bahasa Melayu.

3.2 Population and Sampling

This study was conducted in National Academy of Arts Culture and Heritage (ASWARA) based on few reasons. This institution has been selected because ASWARA is the only institution of higher learning in the field of performance arts that is supported entirely by the Government of Malaysia under the Ministry of Culture and Tourism Malaysia. It is a premier institution of higher learning to provide a space for learning, research and academic publications and professional advisory services in the fields of arts, culture and heritage aimed at producing skilled artists and practitioners who are competent in their fields besides strengthening the sustainability of the national arts heritage.

3.3 Instrumentation

3.3.1 Eating Attitudes Test (EAT-26)

Instruments The Eating Attitudes Test (EAT-26; Garner & Garfinkel, 1979; Garner et al., 1982) is a well-established instrument that measures symptoms and concerns characteristic of eating disorders. The EAT-26 is the most widely used screening measure that may be able to help you determine if someone have eating disorder that need professional attention. The EAT-26 is not designed to make a diagnosis of an eating disorder or to take the place of a professional diagnosis or consultation [37]. The EAT-26 alone does not diagnose an eating disorder. In fact, no test or screening instrument has been shown to be highly efficient as the sole means of identifying an eating disorder. Only a qualified health care professional can provide a diagnosis. However, the EAT-26 can be a first step in the screening process, with the second step being a consultation and evaluation with a qualified professional. The idea behind early screening assumes that an eating disorder identified in its early stages can lead a person to seek earlier treatment, thereby reducing the risk of serious physical and psychological complications [38]. The EAT-26 can be a particularly useful tool for assessing “eating disorder risk” [39]. The EAT-26 can be a particularly useful tool for assessing eating disorder risk. All self-report measures require open and honest responses in order to provide accurate information. The fact that most people provide honest responses means that the EAT-26 usually provides very useful information about the eating symptoms and concerns that are common in eating disorders. This instrument investigates food selection, knowledge about calorie intake, perceptions about how other people evaluate the subject’s dietary habits, vomiting and its frequency, and self-control regarding the amount and frequency of food intake. Each item is scored on a six point likert scale and summed for a total score, with answers ranging from never to always. The three least frequent categories (never, rarely, and sometimes) are given a score of 0, often are scored as 1, usually are scored as 2 and always are given a score of 3 [39].

The questionnaire indicates the risk or presence of eating disorders. It is comprised of 23 items divided into 3 scales: dieting scale, bulimia and food preoccupation scale, and the oral control scale. The dieting scale evaluates food restriction and obsession for losing weight. The bulimia and food preoccupation scale evaluates the use of binge-eating/induced vomiting conducts and thoughts about food. Finally, the oral control scale evaluates food intake self-control and the pressure of the environment to lose weight. These three scales are major risk factors important to the health of people with an eating disorder. Items 1, 6, 7, 10, 11, 12, 14, 16, 17, 22, 23, 24, and 25 pertain to the diet scale, while the values obtained in items 3, 4, 9, 18, 21, and 26 account for the bulimia scale. The remaining items correspond to the oral control scale (2, 5, 8, 13, 15, 19, and 20). The answers and value for each item (except for items 1 and 25) include: never (0 points), rarely (0 points), sometimes (0 points), often (1 point), usually (2 points), and always (3 points). The answers and score for items 1 and 25 were inverted. A score of 20 or more (out of a total of 78) indicates a risk of developing or presenting an eating disorder or suggested the presence of abnormal eating attitudes. Higher scores indicating greater risk of an eating disorder and total scores 20 or above are considered to be in the clinical range. Thus, the EAT-26 may be most suitable as either an outcome measure in clinical groups or as a screening instrument in non-clinical settings.

3.3.2 ISMA UK Stress Questionnaire

The International Stress Management Association ISMA UK is a registered charity and the lead professional body for workplace and personal Stress Management, Well-being and Performance. We promote sound knowledge and best practice, nationally and internationally.

Stress levels of participants were tested in the first round through applying questionnaire of International Stress Management Association (ISMA, 2011). This instrument has been designed by expert researchers and psychologists at the International Stress Management Association and is available online at www.isma.org. this instrument is an open access document and can be used to research purposes free of cost. This questionnaire consists of 25 self-reported dichotomous items. Respondents have to answer yes or no at the end of every question statements about their personal lives and daily activities. This questionnaire required 10 to 15 minutes to answer after which the stress levels of respondents is analyzed through the formula prescribed by the test makers. The interpretation of the scores are as follows:

i) 4 points or less: you are least likely to suffer from stress-related illness

ii) 5-13 points: you are more likely to experience stress related ill health either mental, physical or both. You would benefit from stress management/counseling or advice to help in identified areas.

iii) 14 points or more: you are the most prone to stress
showing a great many traits or characteristics that are creating unhealthy behaviours. It is important to seek professional help or stress management counseling/medical practitioner.

IV. RESULTS

4.1 Level of Eating Disorder

Table 4.1 shows the level of eating disorder among ASWARA’s dancer. Approximately, 90.8% indicates high level of eating disorder with mean score 32.12 and standard deviation 8.20. Meanwhile, 9% was verified low level of eating disorder with mean score 1.63 and standard deviation 1.81.

Table 4.1: Distribution of Level of Eating Disorder According to Dancer in ASWARA

<table>
<thead>
<tr>
<th>Level of Eating Disorder</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>13</td>
<td>9</td>
<td>1.63</td>
<td>1.81</td>
</tr>
<tr>
<td>High</td>
<td>129</td>
<td>90.8</td>
<td>32.12</td>
<td>8.20</td>
</tr>
<tr>
<td>Total</td>
<td>142</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.2 Level of Stress

Table 4.14 shows the level of stress among ASWARA’s dancer. Approximately, 47.9% indicates moderate level of stress with mean score 10.87 and standard deviation 1.90. Meanwhile, 52.1% was verified high level of stress with mean score 15.86 and standard deviation 1.80. There was no result for low level was recorded.

Table 4.2: Distribution of Level of Stress According to Dancer in ASWARA

<table>
<thead>
<tr>
<th>Level of Stress</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Moderate</td>
<td>68</td>
<td>47.9</td>
<td>10.87</td>
<td>1.90</td>
</tr>
<tr>
<td>High</td>
<td>74</td>
<td>52.1</td>
<td>15.86</td>
<td>1.80</td>
</tr>
<tr>
<td>Total</td>
<td>142</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.3 The Relationship between Eating Disorder and Stress

Table 4.3 showed an overall correlation of eating disorder and stress. Based on the findings obtained, eating disorder was a statistically significant linear relationship with the direction of the relationship is positive and the strength of the relationship was moderate ($r=0.75$, $p<0.01$).

Table 4.3: The Relationship between Eating Disorder and Stress

<table>
<thead>
<tr>
<th>Variables</th>
<th>Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlations</td>
<td>0.75**</td>
</tr>
<tr>
<td>Sig (2-tailed)</td>
<td>0.000</td>
</tr>
<tr>
<td>N</td>
<td>142</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

V. CONCLUSION

As mentioned previously, an eating disorder is a serious, potentially life-threatening disease. While, stress also can lead the dancer’s life become unhealthier. Hence, for future research, the researcher would like to study more on how to educate dancers about eating disorder and stress in their daily activities to reduce mental health problems among dancers.

VI. RECOMMENDATION

Clinical expertise should be developed to help the dancer manage the psychological reaction to injury. An assortment of methodologies for the move instructor or choreographer managing a harmed dancer, including teaching and helping the artist to all the more likely see how to alter move exercises amid the recovery time frame in a way that still takes into consideration change, and proceeding verbal help and rectification. Giving the dancer more say in regards to the utilization of an impermanent understudy substitution, in this manner diminishing the dread that his or her part will be for all time lost, might be essential. In the event that the dancer is absolutely unfit to take an interest, the instructor can request that her or him aid classes, mentor different understudies outside class time, and aid practices (taking and giving notes, training different dancers who are battling with areas of the work, and comparable jobs). Responses to watching class fluctuate in every person, and the educator ought to enable the dancer to utilize class time for exercises, for example, physiotherapy or individual work in the event that she or he is one who discovers inactive perception discouraging and baffling as opposed to valuable. Promote proposals incorporate giving the dancer readings and film/video review to maintain intrigue and inspiration, empowering symbolism work, taking part in talks with therapeutic faculty and family (trying to incorporate the artist in these trades), and setting up practical objectives with the dancer, working together with the restorative staff. Next, the significance of social help on occasion of need is additionally present in games damage look into, whereby the objective is to furnish the competitor with a feeling of having a place and affirmation that they are not the only one as far as they can tell of managing damage. A standout amongst the most widely recognized mental precipitants of damage is low self-assurance. Specialist trust that fearlessness is key when supporting the dancer physical and specialized capacities. On the off chance that the dancer does not trust that they can perform, at that point it will keep them from utilizing their capacities. Low self-assurance is fundamentally identified with tension and when the dancer ends up on edge it can debilitate their execution which can prompt further negative feelings, for example, stress.

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REFERENCES


