Hospital Anxiety Depression Scale: Scientific Studies

Introduction:

In everyday life, there are many different factors and experiences which shape the way we think, act and behave in our present life. Intrinsically, a person's mental health is dependent on their life involvements and the enjoyments they have such as intimate relationship with partner, healthy self-esteem, sense of belonging, etc. Another aspect which affects the mental health of human beings is the physical aspect of life, which is associated with nutritional diet, sufficient sleep, etc. In any case, all these are part of one major idea; happiness and level of wellbeing of an individual. Having limited happiness and accomplishing less in life can lead an individual to stop caring after their health; both mentally and physically. This influences people to fall under the category of having a disorder of anxiety and depression. Anxiety and depression can come to anyone at any given moment and as it is common, it is just as much as a terminal disease, as it is now one the leading deaths of teenagers and adults. Anxiety and depression all have different levels of severity according to the patient, it can be mild or life threatening. To find the level of the illness, many medical institutes use a simple questionnaire which is titled, The Hospital Anxiety and Depression scale, or also known as 'HADS'.

This paper attempts to first identify what HADS is and its origin. Not only this but many different studies from psychologists will be used to investigate the accuracy of the hospital anxiety depression scale when diagnosing patients. Furthermore, the reliability and creditability of the hospital anxiety depression scale will be questioned as many similar methods of identifying mental disorders can lead to over and under diagnosis. Therefore, this brings the research question of this essay: "To what extent is the hospital anxiety depression scale an accurate measure in assessing the mental and depression levels of patients?"

Different sources of articles, papers, books, psychological studies and literature are included in this paper. Bocéréan and Spinhoven's studies and findings will also be embedded into this paper. Furthermore, Nowak and Bjelland will be used to ensure the reliability and validity of the HADS.

To reduce the effect of This paper did not consider the other factors such as gender, age, background/ethnicity and credibility of the participants that could also affect the HADS to give false information. Further research is suggested to make to study precise and legally binding to a more versatile of people.

What is it:

Hospital anxiety and depression scale (HADS) set out and created by Zigmond and Snaith. This was done in 1983 and since then, many doctors find this method useful as it is extremely economical and efficient to use. The scale is utilised to determine how powerful is the depression and anxiety level of the patient. The HADS is structured in a questionnaire format which consists of fourteen questions and collects raw and original data. To maintain equality, the HADS involves seven questions targeted against anxiety and seven question towards depression. This makes sure that the patient who might be undergoing the test, does not get

overwhelmed with many questions towards one disorder than the other. Patients with the potential of having depression and anxiety have the chance of being affected by the questions and if the test takes along, it can lead to emotional trauma. This is why HADS is reliable as well because the test contains short and sharp questions which could be completed and ready to be analysed within 3 to 5 minutes. The importance of this scale is because, before the HADS, doctors could not separate if the patient had mental illness or if they were suffering from somatic illness. This includes physical sicknesses such as fatigue, insomnia, hypersomnia. The HADS was viewed as a medical breakthrough as it was extremely beneficial to distinct against somatic issues to anxiety or depression. It was extremely advantageous to doctors as it was fairly easy to use and understand.

As it is a questionnaire, the process does not have to be conducted in a laboratory or clinical setting which makes it suitable to use in many places. However, the “H” in HADS stands for hospital, indicating that the test can only be done in a particular type of location. To test this theory, many studies have been consisted throughout the world, by many psychologists. The outcome from their studies imply that the test can be professionally done by psychiatrist or it can be self-evaluated. To its nature, many psychologists find this questionnaire to be valid and reliable to use from both methods. As it is a scale, doctors and analysers can use it to test how severe the anxiety and depression is in the patient. As many copies and alterations of the scale exist on the internet, HADS is only available in hard copies to reduce the risk of unreliable, invalid diagnosis.

When conduction the HADS test correctly, it can accurately supply information on how dangerous the anxiety and depression in a person. The factor that is impressive about the HADS, is that it is extremely time efficient and can be completed multiple times at once.

Scientists and psychologists do not only use the HADS, they also use DCM (the Diagnostic and Statistical Manual of Mental Disorders) which has a similar purpose as the HADS: used to identify the symptoms of mental illness and diagnose an individual with mental disorders. Another handbook is extremely similar to the DCM which is the ICM. The difference is that ICM can be used

internationally while DCM is only for Americans. CSMD is also invented for Chinese and patients from Hong Kong. The reason why many different types of diagnostic handbooks is created is because doctors forget to include the cultural differences of people which can affect the mental disorders of a person. This is why doctors prefer to use the HADS as it expectable to use for almost everyone. Currently, there are 78 translations of the HADS in different languages. The HADS can be used in western countries and non-western countries. This makes it exceptionally easier for doctors if language acts like a barrier because many people from non-western countries can not understand English. The nature of HADS has multiple different translations, which allows the method not to be restricted. This is where the DCM, CSMD fall short as it is not useable for everyone. HADS is very commonly used by many people including professionals and patients but the reason why psychologists prefer DCM and other handbooks is because not only does it help with diagnosis, but it helps the assessor to identify the symptoms as well. HADS does not have this ability or capability to recognise the symptoms as it just predicts on how threatening the anxiety and depression in a person.

First study: A validation study of the Hospital Anxiety and

Depression Scale (HADS) in a large sample of French employees

Aim:

In France and many different parts of Europe, HADS Is used throughout many hospital and medical infrastructures, but it has never been tested in a large sample size. Therefore, the HADS became invalid to be generalisable to a large population. The aim of this study was to produce data operating the HADS within a large population and demonstrate the reliable of the test subjects based on their age and occupation (Bocéréan 2014). The outcome of the study will determine if HADS can be used for people with different ages and jobs while also predicting if there is a clear correlation between age and occupation of a person.

Participants:

The participants were all based in France to take out other cultural bias between the participants. The test subject's jobs came from 19 major French companies (Bocéréan 2014). To make the test more generable, the participants came from 32 different French towns. The workers occupations ranged from working in: Nuclear (6.3%), Telecommunications (17.5%), Audio-visual (9.8%), Construction (9.7%), Pharmaceutical (4.4%), Banking (7.2%), Cosmetics (6.5%), Aeronautical (7.5%), Petroleum (14.6%), Electronics (8%) and Other (8.5%) (Bocéréan 2014). The employees took and answered the questionnaire as a part of their biennial occupation medical examination. The experiment was conducted in 2011 and contained 20993 employees meaning the experiment had a large sample of test subjects (Bocéréan 2014).

Findings:

The results indicated that women scored higher than men for anxiety and depression. A correlation was also found that as the ages increased in the test subjects, so did their scores meaning more predominant to have depression and/or anxiety. This could mean anxiety and depression could start to build up through life. Occupational status such as engineers and managers had the least average score compared to the sample population. (Bocéréan 2014).

Conclusion:

The results of the questionnaire were coherent though most of the participants with few being outliers. Even if the outcome showed outliers, overall, the HADS test is an appropriate method to notice or find symptoms of anxiety and/or depression in a large population with many different types of jobs and occupations (Bocéréan 2014). From this study, HADS is proven to be suitable to detect the early stages of depression or anxiety. Not only this, but the test could also predict if a participant requires more further treatment, regarding anxiety and depression. However, it is suggested that only a medically certified specialist can diagnose people with anxiety and depression (Bocéréan 2014).

Second Study: A validation study of the Hospital Anxiety and Depression Scale (HADS) in different groups of Dutch subjects

Aim:

As the first study had spotted a correlation in age and their score in HADS, another study was conducted in the Dutch community to further understand and test the reliability of the HADS. The experiment had a second purpose; to establish the existence of depression and anxiety in various age groups.

Participants:

In total, the experiment, the age group ranged from 18 and upwards. In total, the test had 6165 people participating (Spinhoven 1997). The groups were spread out into 6 different sections: a random sample of young adults (18yr-65yr, 199 participants), a random sample of elderly subjects (57yr to 65yr, 1901 participants), random sample of elderly subjects (66yr, 3293 participants), a sample of consecutive general medical out-patients with unexplained somatic symptoms (169 participants) and finally, a sample of consecutive psychiatric out-patients (491 participants) (Spinhoven 1997).

Findings:

The results had found that the anxiety and depression are very intensely associated as the proof of the two-factor solution was uncovered from the experiment (Spinhoven 1997). The test showed that the results that the age groups did little effect to their respected HADS scores (Spinhoven 1997). The experimenters suggest that instead of age, the correlation was found positive predictive value and the sensitivity(Spinhoven 1997). This helped to find any hints of psychiatric disorder in humans; subscales include depression and anxiety (Spinhoven 1997).

Conclusion:

HADS was found to be extremely reliable to identify the starting symptoms of depression and anxiety. The results indicated that age might not have a correlation with a person being diagnosed with anxiety or depression which is the opposite results from the first study. Therefore, it is still unclear whether age has a correlation with participants HADS score.

Third Study: The validity of the Hospital Anxiety and Depression Scale.

Aim:

This study attempts to investigate the wording and structure of the Hospital Anxiety and Depression Scale (HADS). As many psychologists and doctors might be concerned about potential, negative feedback from the literature of the HADS, the study will also further investigate the extent of validity of the HADS.

Participants:

The study required no living subjects. However, to gather data for the study, 747 identified papers that were used the HADS. (Bjelland 2002).

Method:

The past papers were analysed and were investigated and evaluated on the following questions: How are the factor structure, discriminant validity and the internal consistency of HADS? How does HADS perform as a case finder for anxiety disorders and depression? How does HADS agree with other self-rating instruments used to rate anxiety and depression? (Bjelland 2002). All of these questions were all designed to question on the language used in the HADS while using the Cronbach's alpha scale to measure on how accurate are both factors in the scale(Bjelland 2002).

Results:

The outcome of the results indicated a good correlation between depression and anxiety. The papers from which have been used for HADS, showed that two subscales (anxiety and depression) are work together. To understand the values given from this study, the numbers are compared against the Cronbach's Alpha and the strength of the value Is given by the Internal Consistency:

Cronbach's Alpha Internal Consistency

a ? 0.9 Excellent

0.9 > a ? 0.8 Good

0.8 a ? 0.7 Acceptable

0.7 > a ? 0.6 Questionable

0.6 > a ? 0.5 Poor

0.5 > a Unacceptable

The values were given by the two-factor solution test were proven to be at a 'good' consistency (Bjelland 2002). The subscales in HADS had a very strong correlation. When measuring the correlations for anxiety, the values ranged from 0.68 to 0.93 (Bjelland 2002). This gave the average of .83 which is a good consistency (Bjelland 2002). Depression was also very similar to these results from latter subscale as the values for correlation ranged from 0.67 to 0.90 (Bjelland 2002). This gave the mean of 0.82 which again is a good consistency (Bjelland 2002). The values were given by the sensitivity of the question and how specifically it targets the issue (anxiety and depression). The values and sensitivity and how specific HADS questions are when talking about the two subclasses, were provided by the General Health Questionnaire (GHQ) (Bjelland 2002).

Conclusion:

Shown from the GHQ, HADS was proven to have a statistical, good correlations for both anxiety and depression as when sensitivity and specifically targeted questions were involved. This study also includes that the HADS was sufficient in judging the Severity of depression and anxiety in all sorts of people in the normal community including somatic, psychiatric and common patients (Bjelland 2002).

However, as proven from the other studies that HADS is reliable and valid in detecting the early or sever symptoms of anxiety and depression. Not only this but, some studies have also noticed the correlation between the two subclasses to be related and similar. As accurate the HADS may seem, there was a study that which shows that the HADS was proven to be inaccurate. This study was testing the HADS with patients which already have a somatic disease.

Forth Study: Accuracy of the Hospital Anxiety and Depression

Scale for Identifying Depression in Chronic Obstructive Pulmonary Disease Patients.

Aim:

This study attempts to investigates the HADS when there is a large sample of participants when already diagnosed with a somatic, respiratory related disease. Many hospitals and doctors have approved of the use HADS in general patients which is why this study targets patients who are already diagnosed with a critical illness. (Nowak 2014).

Participants:

The patients were enlisted as potential participants from October 2009 to June 2013(Nowak 2014). The participants will be patients who are infected by the Chronic Obstructive Pulmonary disease. The reason behind this is because this physical disease hinders normal breathing and even with medical studies advancing, there is still no treatment found for the chronic respiratory disease (Pietrangelo 2018).According to science, having diseases makes the patient more vulnerable to another psychological illnesses such as anxiety and depression(Helper 2016). The participants were aged from 40 to 75(Nowak 2014). The average age of the participants was 62.5. Initially, for the experiment, there was 348 patients infected from COPD were considered to be adequate to participate but only 259 results got collected(Nowak 2014). The loss of 89 participants happened for numerous reasons such as, some didn't attend (8), refusal to participate (71), language barrier (6) and insufficient data collection (4) (Nowak 2014). From this batch of patients, past information has been researched upon them and it was recorded that 29 out of 259 (11.2%) were already diagnosed with depression (Nowak 2014). The primary care physicians of the patients were the people responsible for the diagnosis of depression. The diagnosis occurred by using the 10th edition of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) (Nowak 2014). Not only this but 10 of the 29 patients (35% out of the sample of depressed participants) (3.86% out of census) depression was severe as they required prescribed antidepressants as medications. (Nowak 2014).

Method:

The participants were tested in multiple procedures ranging from a self- report questionnaire to having investigators ask the patients question in an interview style (Nowak 2014). Not only this, but their clinical records were also pulled to examine their conditions (Nowak 2014). This was the preliminary procedure to understand the patient before continuing the method.

To ensure reliability of the testing, the assessment was only performed by either physicians who specialise in the respiratory system and treating lung related diseases such as lung cancer, tuberculosis or in this case COPD or trained professionals who were chosen to be the study

investigators (Nowak 2014).

Results:

The experiment used multiple methods of statistical testing such as the Independent sample -tests, Mann-Whitney test, and Chi-Square to figure out if the HADS was significant enough to find and diagnose patients with depression or anxiety if already diagnosed with COPD(Nowak 2014). The statistical testing were all done with the significance level of 0.05 and all the tests were proven to show that there was no significant difference between depressed and nondepressed patients suffering from reportorial disease respectfully (Nowak 2014). Although, the HADS wasn't successful in this aspect of the study, it was able to detect a trend; participants who were already battling depressing scored a much higher score than participants who weren't diagnosed with depression before the assessment(Nowak 2014). This trend carried out though the depression subclass in HADS and the final HADS score.