

Examining the reliability of malnutrition universal screening tool nursing essay



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Introduction

This essay will be looking at the malnutrition universal screening tool in relation to validity and reliability. This assessment tool is designed to identify whether adult patients are malnourished, at potential risk of malnutrition (undernutrition) or those that are obese. It also includes management guidelines which can be used to develop a care plan. (BAPEN, 2003)

The authors' rationale for choosing to discuss this particular tool is to find out more information on the tool itself to enhance their personal development. Also to identify whether there are any weaknesses found in any of the components of the tool which could affect the reliability of the tool as it is used in various clinical settings. She has come across this tool during clinical placements; some of the components of the tool may lack sensitivity and specificity which could result in inaccurate results.

The essay will consist of a brief history of the assessment tool, its development, the client group it is used for and where it is used. This will be followed by brief definitions of validity and reliability. The main focus will be on validity and reliability of the tool itself, whether it accurately measures what it is designed to find and if the information found is a valid set of findings.

Then the author will give their own reflection on when she has used the tool while in a clinical setting, followed by a brief summary of the overall essay. Finally to conclude she will summarise by stating whether she feels that it is an effective assessment tool in relation to the evidence based findings.

History of the Tool

The MUST tool was developed by the Malnutrition Advisory Group (MAG) who are the standing committee of Bapen (British Association of Parenteral and Enteral Nutrition). Bapen was formed after the King's Fund Centre produced the report 'A Positive Approach to Nutrition as a Treatment' (King's Fund, 1992) which was designed for the multidisciplinary team which outlined the importance of nutrition in hospitals. 'MUST (Appendix 1. 1) is a screening tool that has been devised for application to all adult patients across all health care settings. (Elia, 2003)

Malnutrition adversely affects physical and psychological function (Elisa, 2000; Stratton et al. 2003b) and impairs patients' recovery from disease and injury, thereby increasing morbidity and mortality. According to (Bapen, 2003) it affects 18%-10% of patients attending out patient clinics and GP surgeries and between 20-60% of hospital admissions be medical, surgical, elderly and orthopaedic wards.

In busy clinical settings malnutrition can go unnoticed 'thousands of patients are starved' (Florence Nightingale, 1859) therefore this assessment tool has been designed to identify if adult patients are at risk or are malnourished, so appropriate medical interventions can be implemented if required and care plans can be formulated. It is designed to increase recovery and decreases diseases; GP visits and the period patients are in hospital. It is used for adults in healthcare settings such as hospitals, care homes and in the community, also those with eating disorders, mental health problems and critically ill patients.

Validity and Reliability

Validity is an instrument used to get specific results. According to Le Compte and Goetz (1982) validity is concerned with the truthfulness and accuracy of scientific findings. If a tool can measure or count what is required this shows that it is reliable and the information is objective as apposed to subjective which cannot be verified.

Lincoln and Guba (1985) state that ‘ Reliability is not prized in its own stake but as a precondition for validity; an unreliable measure cannot be valid’.

There have been various studies on whether the malnutrition universal screening tool is valid or reliable. Studies are carried out to find out whether a tool is deemed valid or reliable and whether it lacks sensitivity or specificity. Sensitivity indicates the accuracy of the tool, i. e. if a patient is at risk however the assessment tool fails to identify the risk it indicates that the tool lacks sensitivity. On the other hand, if a tool lacks specificity it negatively identifies patients at risk.

A study was carried out at Guy’s and St. Thomas’ Hospital NHS Trust which was aimed to design, pilot and evaluate a nutritional screening tool based on four nutritional parameters (weight, height, recent unintentional weight loss and appetite) as recommended by BAPEN (2003) as the minimum requirement for identifying patients at risk of nutritional problems. (Weekes et al, 2004)

A dietician used the screening tool to assess the nutritional status of 100 patients admitted to the general wards. To assess the validity of the tool it was compared to a nutritional assessment carried out by an experienced
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dietician in 100 patients that were admitted to acute medical and elderly care ward. The next part of the study was carried out by a nurse and the dietician who compared the scores they obtained from the same patient. Clinical data and interpretation can differ from one professional to another therefore all patients were seen by the same dietician.

The reliability of the nutritional screening tool was also assessed by three nurses who independently assessed 33 consecutive patients; the results were not shared, they were blinded to the results of one another. Overall, results obtained identified that no single aspect of the tool is sufficient to identify those at risk; each parameter of the tool contributes vital information required for the final score therefore all three parameters were required to identify all at-risk patients.

In conclusion to the studies carried out the tool was reliable in identifying those at risk of malnutrition and was quick and simple to use. Due to ward routine it was not possible to accurately record the amount of food consumed by the patients at all times, and it was also highlighted that the BMI was incorrectly calculated in 11% of the patients and not recorded at all in 20%. This shows that even though some of the information required was not accurate the tool was still reliable and different observers obtained the same results.

‘ Any screening tool should be valid, i. e. should measure what it is intended to measure, reproducible, i. e. identify malnourished and at risk patients and reliable, i. e. different observers should obtain the same results on the same patient’ (Weekes et al, 2004)

According to Bapen (British Association for Parental and Enteral Nutrition, 2009) to determine BMI clinical judgements can be given by observing the patient as being 'thin, acceptable weight, very thin or obese'. Critics would argue that this is subjective information which could lead to inaccurate results and It also does not take into consideration that patients from different ethnical backgrounds may be shorter, bigger or taller which will affect their BMI. According to The MUST Report (BAPEN, 2006a) 'The tool has face validity, content validity, concurrent validity with a range of other screening tools, and predictive validity'

Unplanned weight loss can be measured against previous weight at initial assessment or a subjective judgement can be made if it is not possible to weigh the patient. Bapen (2003) suggests that this can be made by observation of their physical appearance, if clothes or jewellery have become loose or if there is evidence of poor food intake.

Nutrition is vital for all patients in clinical settings; however it is a huge concern in those that are critically ill. Evidence shows that there are many physiological changes occurring in acute patients, therefore nutrition is very important. 'Sources of energy are not classed as nutrients but are equally essential for health' (Benyon, 1998)

Critics have argued that cut-off points for the Body Mass Index have not been amended for elderly patient who may be underweight. Bapen (2003) state that BMI of $<20 \text{ kg/m}^2$ have been used in health surveys, even for adults over the age of 65 who may appear to be underweight.

The score for acute patients on step 3 of the tool is 2; this is relatively high due to the lack of or no nutritional intake. When patients are critically ill they are usually very limited to physical activity or none at all, therefore energy levels are very low. According to Bapen (2003) the weight loss in acutely ill patients can be up to 10% or more between 3-6 months.

Even though some of the aspects of the malnutrition universal screening tool assessment may result in subjective criteria it is still a valid tool which is used in clinical settings to detect patients at risk. Although some may criticise the Body Mass Index and weight loss score, there is evidence that it is still able to measure what it is intended to.

Mid Ulster Hospital in Northern Ireland piloted the Malnutrition universal screening tool in attempt to detect patients that were at risk of malnutrition at an earlier stage to prevent further health conditions. A care plan was formulated for those who were at risk and relevant training was given to all staff at the hospital, this ensured that the tool was used correctly by all health care professionals. They assessed 200 patients who were aged 16-98years. They found that the tool gave effective results, more diabetic referrals were made. Prior to using the tool diabetic referrals were made by observing weight loss or if a patient had a Braden risk assessment score of <18.

Mc Williams, B. (2008) Assessing the Benefits of a Malnutrition Screening Tool, *Nursing Times*; 104: 24, 30-31

Personal experience of using the tool

My personal experience of using the malnutrition universal screening tool was at a clinical placement on a rehab ward with elderly patients. It was evident that the female patient I assessed was malnourished as she had lost some weight in the 7 days I had been on the ward. So I was concerned about her nutritional status and was observing what actions the professionals were taking. She had a low Body Mass Index and had poor appetite; she refused to eat at breakfast or lunch times. I was aware of how to use the tool and the patient was aware of what the tool was assessing. She was at high risk so I informed the medical staff in charge; she made a referral to the dietician. She was also at high risk of developing pressure ulcers so an air mattress and cushion was arranged for her. The patient was monitored on a weekly basis and was prescribed supplement drinks which would provide protein and nutrients. I felt that nutritional intake is not encouraged enough and personal preferences need to be addressed more effectively. However, if a patient refuses to eat or drink when prompted their decision needs to be respected (NMC Code, 2008)

Conclusion

Malnutrition is an ongoing problem and can be detected early if assessments are carried out on a regular basis and effectively. ' Setting clear goals, identifying who is doing what, why and when is essential and having a clear plan of action is crucial' (RCN, 2008)

When using the malnutrition universal screening tool to assess nutritional status the body mass index is valid as there is a recognised normal range between body weight and height. However it is not the best evidence which <https://assignbuster.com/examining-the-reliability-of-malnutrition-universal-screening-tool-nursing-essay/>

can contribute towards the assessment of nutritional status but it does help with the overall scoring, when considered alongside the other parameters of the screening tool.

This tool is easy to quick and easy to use even though critics argue that it may lack sensitivity. According to evidence based findings and reviews it is widely used in most clinical setting and if used alongside other tools and formulated care plans risk of malnutrition can be detected earlier.