CPD CONTINUING PROFESSIONAL DEVELOPMENT

NURSING STUDENTS

Promoting healthy lifestyle behaviours and well-being among nursing students

NS880 McSharry P, Timmins F (2017) Promoting healthy lifestyle behaviours and well-being among nursing students. Nursing Standard. 31, 24, 51-61. Date of submission: 12 June 2016; date of acceptance: 27 October 2016. doi: 10.7748/ns.2017.e10588

Patsy McSharry
Lecturer in nursing and health studies, St Angela's College, Sligo, Ireland

Fiona Timmins
Associate professor of nursing and midwifery, Trinity College, Dublin, Ireland

Correspondence
pmcsharry@stangelas.nuigalway.ie

Conflict of interest
None declared

Peer review
This article has been subject to external double-blind peer review and checked for plagiarism using automated software

Revalidation
Prepare for revalidation: read this CPD article, answer the questionnaire and write a reflective account: nursing standard.com/revalidation

Online
For related articles visit the archive and search using the keywords

Abstract

First-year university students often embark on university life with excitement. In addition to experiencing greater freedom, they begin to take responsibility for their lives. However, it can be challenging for students to balance their studies with their new self-care responsibilities, while forming peer relationships. Some students may eat a suboptimal diet, for example they may regularly consume 'fast food' rather than healthier alternatives. Their physical activity may also decrease, as a result of time constraints and/or lifestyle choices. A suboptimal diet and reduction in physical activity, combined with possible stress associated with this life transition, can result in adverse health effects, for example weight gain and mental health issues. This article aims to support nursing students to adopt a practical approach to maintaining their health and well-being as they adjust to university life.

Keywords

diet, exercise, health promotion, lifestyle behaviours, nursing students, physical activity, self-care, stress, well-being

Aims and intended learning outcomes

The aim of this article is to support nursing students to adopt a practical approach to improving and maintaining their health and well-being. After reading this article and completing the time out activities you should be able to:

- Explain the benefits of physical activity, healthy eating and maintaining psychological well-being.
- Discuss the effects of inactivity, unhealthy eating and stress on students.
- Outline recommendations for physical activity and healthy eating for students.
- Describe the strategies that can be used to reduce stress.
- Assess your physical fitness, weight and healthy eating behaviours, and examine stressors in your life.

Relevance to The Code

Nurses are encouraged to relate their practice or experience to the four themes of The Code: Professional Standards of Practice and Behaviour for Nurses and Midwives to their professional practice (Nursing and Midwifery Council (NMC) 2015). The themes are: Prioritise people, Practise effectively, Preserve safety, and Promote professionalism and trust. This article relates to The Code in the following ways:

- It provides information about healthy diet, physical activity and ways to cope with stress. This relates to The Code, which emphasises the importance of promoting well-being and preventing ill-health.
- The Code states that nurses must support nursing students to develop their professional competence and confidence. Nurses will be able to provide relevant and appropriate support by being aware of the challenges that nursing students may experience.
- The information provided about healthy lifestyle behaviours can be used to inform practice. The Code requires that

To write a CPD article
Please email **gwen.clarke@rcni.com**. Guidelines on writing for publication are available at: journals.rcni.com/r/author-guidelines

nurses keep their knowledge and skills up-to-date.
» It contains advice about how to cope with stress and maintain well-being. The theme of promoting professionalism and trust emphasises that nurses must maintain the level of health necessary to carry out their professional role.

Introduction

For many students, embarking on their university experience is exciting, yet it may also be daunting and anxiety-provoking. Students are often excited by the prospect of living away from home for the first time, and they may look forward to becoming more independent and making new friends. However, for many, the reality might not be what they expected, because their greater freedom involves a variety of new challenges, such as managing their finances, shopping and food preparation. Other challenges might include: time management; a lack of structure, which can lead to boredom; navigating relationships with new friends; coping with loneliness; and, for some, living away from home for the first time. Unlike other students, nursing students experience clinical placements as part of their programme of study, which can be stressful and tiring.

For many students, maintaining an adequate nutritional diet can be a low priority during the initial period of adjustment. Studies indicate that the first year of university is a high-risk period for students developing obesity (Ferrara 2009, Fedewa et al 2014). Vadeboncoeur et al (2015) found that two thirds of students gained weight during their first year at university, attributing this to stress, alcohol consumption, unhealthy eating and reduced physical activity.

Some students may increase their alcohol intake when making the transition to university (Lacaille et al 2011). Increased alcohol intake can result in increased consumption of highly processed food, containing high levels of saturated fat, sugar and salt. Thus, it might be a challenge for students to maintain adequate nutrition and a healthy weight. Students may lack the knowledge and awareness of what constitutes a nutritionally balanced diet, because they have not previously been involved in food shopping and preparing meals.

Physical activity levels decline as children become teenagers, and as teenagers become young adults and university students (Ferrara 2009). Reasons for this decline include lack of exercise facilities, the academic demands of coursework, and low priority attributed to exercise (Ferrara 2009). Declining physical activity levels during university years may lead to a pattern of inactivity in later life (Fielder-Jenks and Chelsea 2010).

A pattern of consuming processed food that has low nutritional content, combined with declining physical activity, presents health risks for young adults. There is an increasing risk of becoming overweight or obese during this stage in life and this may then become the norm (Gropper et al 2009). The risk of weight gain is significantly higher in the critical transition period from secondary education to university, than at other times (Levitsky et al 2004). Weight gain that occurs at university is typically maintained (Gropper et al 2009), and weight gain may continue to occur throughout university years (Lloyd-Richardson et al 2009).

Stress often compounds dietary and inactivity problems. The stressful nature of university life, particularly the first year, is well documented (Brougham et al 2009, Bewick et al 2010, Patterson 2016). The first semester is often a particularly high-risk period, as students adjust to this significant life transition. McSharry and Timmins (2016) found that students' main need in the first year at university was psychological support, particularly from their peers. This adjustment period was so stressful that other needs, such as adequate nutrition and exercise, became low priorities. For many students, the first year at university is a highly emotional period in their lives; therefore, it is important for them to feel safe, secure and supported and to have a sense of belonging.

Physical activity

The World Health Organization (WHO) (2016a) defines physical activity as 'any

bodily movement produced by skeletal muscles that requires energy expenditure'. The energy expenditure on physical activity depends on its duration, intensity and frequency, and the interaction of these three factors determines its overall effects on health (Keating et al 2005). In contrast, exercise is defined as 'physical activity that is planned, structured, repetitive, and aims to improve or maintain one or more components of physical fitness' (WHO 2016a). Physical fitness is a set of health or skill-related attributes that people have or achieve that relate to the ability to perform physical activity (Caspersen et al 1985).

TIME OUT 1

Following the instructions in the second paragraph on the following website: www.health.harvard.edu/staying-healthy/aerobic-fitness-test-the-step-method, undertake a modified version of the three-minute step test. Record your results and identify your aerobic fitness. You may wish to carry out this activity with a friend and compare your results.

One in four adults worldwide is not sufficiently active (WHO 2016a). More than 80% of adolescents are not sufficiently physically active, with girls being less active than boys (WHO 2016a). Surveys indicate a trend of decreasing activity from childhood to adolescence and into young adulthood (Morgan et al 2008, Ipsos MRBI 2015). Lunn et al (2013) found that one in ten children who was physically active in primary school no longer participated in sports by the first year of secondary school. The transition to university has been considered to be a particularly high-risk period for a reduction in the level of physical activity, associated with students moving away from home and potentially away from team sports.

TIME OUT 2

List five benefits of physical activity to health and well-being. Consider your role in health promotion and how you might disseminate your knowledge of the importance of physical activity to nursing students.

Benefits of physical activity

There is evidence that physical activity improves health (Warburton et al 2006, Wen et al 2011, Lee et al 2012, Ekelund et al 2015). The health benefits of physical activity are summarised in Box 1. 'In virtually all disease states, there exists strong or moderate evidence to show that physical activity improves functional capacity and quality of life' (WHO 2007). Nikander et al (2005) found that high-impact exercise improved skeletal integrity, muscular performance and dynamic balance in pre-menopausal women, helping to prevent osteoporosis. Evidence has also demonstrated the beneficial health effects of physical activity on conditions such as chronic obstructive pulmonary disease, osteoarthritis, fibromyalgia, chronic fatigue syndrome, depression and some types of cancer (WHO 2007).

The health benefits of physical activity are clear; therefore, it is important for every individual to engage in physical activity. However, there are several barriers to engaging in physical activity, including lack of time or facilities and lack of motivation (Lacaille et al 2011). The authors consider it essential for healthcare professionals to understand what motivates an individual to undertake physical activity to provide effective health promotion. It is necessary for individuals to feel motivated and to see the potential benefits of engaging in a physical activity programme. Often, young people who have not experienced any health risks do not consider health improvement and disease prevention to be strong motivators, despite the health benefits of engaging in physical activity. Egli et al (2011) indicated that regulating energy balance, and thus losing weight, is the strongest motivator for engaging in physical activity for young

BOX 1. Health benefits of physical activity

- Improves muscular and cardiorespiratory fitness
- Improves bone and functional health
- Reduces the risk of cardiovascular disease, stroke, diabetes, hypertension, breast and colon cancer, depression and osteoporosis
- Reduces the risk of falls and the risk of vertebral or hip fractures
- Improves musculoskeletal conditions, such as osteoarthritis
- Is fundamental to energy balance and weight control
- Enhances psychological well-being and improves mental health by reducing depression and anxiety

(World Health Organization 2007, 2016a, Morgan et al 2013)

KEY FACT

Research has indicated that 15-20% of the overall risk for coronary heart disease, type 2 diabetes, colon cancer, breast cancer, and hip fractures in older adults, is attributed to physical inactivity (WHO 2007). 'Physical inactivity is estimated to cause approximately 21-25% of breast and colon cancer burden, 27% of diabetes and about 30% of ischaemic heart disease burden' (WHO 2009). Physical inactivity is estimated to cause 3.5% of the overall disease burden in the European region (WHO 2007)

people, particularly young women. Engaging in physical activity can be perceived as hard work, requiring considerable time and effort. Total energy expenditure increases with increased physical activity. However, Pontzer et al (2016) suggested that total energy expenditure plateaus for those engaging in high levels of physical activity. Thus, it may not be necessary for individuals to push themselves to extremes to achieve weight loss associated with physical activity.

Health effects of inactivity

Research has indicated that 15-20% of the overall risk for coronary heart disease, type 2 diabetes, colon cancer, breast cancer, and hip fractures in older adults, is attributed to physical inactivity (WHO 2007). 'Physical inactivity is estimated to cause approximately 21-25% of breast and colon cancer burden, 27% of diabetes and about 30% of ischaemic heart disease burden' (WHO 2009). Physical inactivity is estimated to cause 3.5% of the overall disease burden in the European region (WHO 2007).

TIME OUT 3

Keep a diary of what and how much physical activity you undertake in the next week. Using the information in Table 1, identify if you undertook adequate physical activity to gain health benefits. Use the recommendations in Table 1 to formulate a physical activity plan for a nursing student aged 20 years.

Physical activity recommendations

Policies and plans to increase physical activity have been developed in 80% of WHO member states (WHO 2016a), for example the Get Ireland Active! National Physical Activity Plan for Ireland (Department of Health and the Department of Transport, Tourism and Sport 2016). Table 1 shows the recommended levels of physical activity for different age groups.

The recommendations in Table 1 reflect the minimum levels of physical activity required to gain health benefits. The WHO (2007) indicated that for many people, 45-60 minutes of moderate-intensity physical activity per day is necessary to prevent weight gain or to lose weight. Lack of time is the most frequently cited barrier to engaging in physical activity (Lacaille et al 2011). Therefore, the WHO (2007) recommendations suggest that the 30 minutes of physical activity can be divided into shorter periods. Ideally, these periods would not be less than ten minutes, but even short sessions of physical activity can contribute to substantial health benefits (WHO 2007). Students should be aware of their physical activity levels and understand how they relate to recommended levels. Box 2 contains practical advice for students in relation to exercise.

Healthy eating

A healthy diet consists of macronutrients, such as carbohydrates, fats and proteins, and micronutrients, such as vitamins and minerals. It is essential for individuals to have a balanced intake of macronutrients

TABLE 1. Recommendations for physical activity to gain health benefits

Age	Recommended level of physical activity	Should include
Children and young people (2-18 years)	At least 60 minutes per day at a moderate-to-vigorous level.	Muscle strengthening, flexibility and bone-strengthening exercises, three times per week.
Adults (18-64 years)	At least 30 minutes per day of moderate-intensity activity on five days per week (or 150 minutes per week).	Activities that increase muscular strength and endurance on two to three days per week.
Older people (65 years and over)	At least 30 minutes per day of moderate-intensity activity on five days per week (or 150 minutes per week).	Focus on aerobic activity, muscle-strengthening and balance.

(Department of Health and Children and Health Service Executive 2009)

to achieve a healthy diet. Fat is the most energy-dense macronutrient, containing 9 kilocalories per gram of fat. Fat is essential for steroid production and forms part of cell membranes. Protein contains 4 kilocalories per gram and is essential for growth and repair of the body. Carbohydrate is the main energy source of the body; it contains 4 kilocalories per gram and is made up of complex and simple carbohydrates. Alcohol contains 7 kilocalories per gram and has no nutritional value (NutriStrategy 2015).

The energy requirements of adults depend on the amount of energy required to maintain the essential functions of the basal metabolic rate (BMR), the amount of energy that a person requires to keep the body functioning at rest, and their physical activity levels (PAL). Thus, total energy expenditure in kilocalories equals BMR x PAL.

Adult energy requirements depend on an individual's body size, age, gender and physical activity levels. On average, an adult male who is sedentary requires 2,200 kilocalories per day, whereas an active male may require 2,400-2,800 kilocalories per day, depending on their PAL. A typical adult female requires 1,800 kilocalories per day if they are sedentary, or 2,000-2,200 kilocalories per day if they are active (Food Safety Authority of Ireland 2012). It is important to acknowledge that physical activity only enables females to consume an additional 400 kilocalories a day, or males to consume an additional 400-800 kilocalories a day, before their energy intake exceeds energy demands. Some individuals may believe that if they have undertaken adequate physical activity, they do not need to control what they eat to remain a healthy weight. However, research evidence suggests that 'you cannot outrun a bad diet' (Malhotra et al 2015).

TIME OUT 4

Estimate how many kilocalories there are in:

- One 25g packet of crisps.
- One iced doughnut.
- Two wholegrain biscuits.
- One large chocolate muffin.
- One slice of apple tart.
- One 50g chocolate bar.

Answers to this time out activity are provided at the end of the article (page 60).

The WHO (2009) stated that the mean body mass index (BMI) is increasing worldwide, because of changes in diet and increasing physical inactivity. The worldwide prevalence of obesity more than doubled between 1980 and 2014; in 2014, approximately 13% of the global adult population were obese, while 39% of adults worldwide were overweight (WHO 2016b). Being overweight or obese is linked to more deaths worldwide than being underweight (WHO 2016b). However, obesity and undernutrition may co-exist in the same community.

TIME OUT 5

List seven benefits of healthy eating. What do you consider to be the strongest motivator for you to achieve a healthy diet? How might you support nursing students in university to identify and use their motivators to achieve a healthy diet?

Benefits of healthy eating

The Food Safety Authority of Ireland (2011) stated that effective nutrition, together with an active lifestyle, has a crucial role in the prevention of chronic conditions such as obesity, cardiovascular disease, diabetes, osteoporosis and some types of cancer (Box 3). Healthy eating also contributes to an overall sense of well-being and is important in the prevention of dental caries and asthma (Shepherd et al 2006).

BOX 2. Practical exercise advice for students

- Choose activities you enjoy
- Exercise with a friend for social support
- Invest in some exercise clothing or equipment, since this will increase your motivation
- Be organised – for example, bring your trainers and exercise gear with you in the morning
- Walk to work or university – this will also save money
- Sign up for a 5km or 10km fundraiser, since having a goal will enhance your motivation
- Use interval training to build up your level of exercise gradually, for example, run for one minute, then walk for two minutes
- Download exercise apps, such as sports trackers
- Keep an activity diary and document your activity. Ensure you enjoy each achievement, as it happens

Effects of unhealthy eating

Obesity is caused by an energy imbalance between kilocalories consumed and kilocalories used for metabolic activities. It is increasingly prevalent as a consequence of an unhealthy diet (WHO 2016b). Weight gain results from an individual's energy intake exceeding energy expenditure. This is often a consequence of a high-fat, high-sugar diet and a decrease in physical activity. However, individual decisions about food intake are not the sole cause of obesity.

Factors relating to the increased prevalence of obesity are complex, but include: increasing availability of foods high in sugar, fat and salt (Gortmaker et al 2011); the global food industry (Walker 2011); an obesogenic environment (Health Service Executive 2010); increased automation as a result of advances in technology; and decreased physical activity (Irish Heart Foundation 2010).

The effects of increases in portion size and the marketing strategies of food manufacturers have contributed significantly to the rapid rise in levels of obesity. SafeFood (2014) found that the portion size of some foods increased significantly from 1997-1999 to 2009-2010; for example, the size of unpackaged Danish pastries and muffins increased four-fold in this period. This may contribute to the difficulty some individuals have in maintaining a healthy weight.

Being overweight or obese is considered a significant risk factor for several conditions, including cardiovascular disease, diabetes, musculoskeletal disorders and some types of cancer, including endometrial, breast and colon cancer (WHO 2016b). Globally, 44% of diabetes burden, 23% of ischaemic heart disease burden and 7-41% of some types of cancer burdens can be attributed to the individual being overweight or obese (WHO 2009).

Obesity is associated with psychological difficulties, including body dissatisfaction, low self-esteem and stigmatisation about weight (Neumark-Sztainer and Haines 2004). O'Connell (2012) suggested that people who are obese are highly stigmatised and experience prejudice and discrimination because of their weight. Trew et al (2005) described the occurrence of disordered eating patterns among adolescents, particularly among women. Body image concerns were prioritised over nutritional concerns, and many adolescents were motivated by a diet that would help them lose weight, regardless of its nutritional content. Many adolescents viewed healthy eating as a 'quick fix' solution for weight control, rather than as a commitment to a healthy lifestyle (Trew et al 2005).

As with physical activity, encouraging young people to eat healthily to provide health benefits may not motivate them. Mooney et al (2009) suggested that girls in particular, may misuse the concept of healthy eating as a mechanism to achieve weight loss, rather than to prioritise a nutritionally balanced diet. The diet industry has a responsibility to provide information on nutritionally balanced diets for weight reduction that provide the essential macronutrients and micronutrients necessary to sustain a healthy lifestyle.

Recommendations for healthy eating

Energy intake (kilocalories) should be balanced with energy expenditure, so that the body receives the necessary energy requirements, avoiding excess calorie intake that will result in weight gain (WHO 2016b). Many resources provide information about diet and nutrition. However, there is a plethora of information available, which can result in the public and healthcare professionals being confused about what they should eat to remain healthy and to maintain their weight within healthy weight limits.

A healthy diet should achieve an

BOX 3. Benefits of healthy eating

- Promotes growth and repair of body cells
- Promotes weight management and maintenance of a healthy weight
- Boosts the immune system, thereby reducing illness
- Promotes overall well-being, and improves mood and self-esteem
- Promotes cognitive functioning
- Prevents constipation
- Reduces dental caries
- Prevents conditions such as obesity, type 2 diabetes, cardiovascular disease, hypertension, stroke, musculoskeletal conditions and some types of cancer

(Shepherd et al 2006, Food Safety Authority of Ireland 2011)

appropriate energy balance, provide optimum nutrition and enable the individual to maintain a healthy weight. It is important that an individual is consuming the right type and amount of nutritious foods to achieve this. The WHO (2015) recommended that individuals should limit their fat intake to less than 30% of total energy intake. Fats should be in the form of unsaturated fats, such as olive oil and avocado. Trans fats, which are found in processed foods such as pastries, should be avoided.

The WHO (2015) indicated that a healthy diet should include 400g (five portions) of fruit and vegetables a day, as well as legumes, grains and nuts. They recommend that free sugars, such as sweeteners, which are often added to confectionary and soft drinks during manufacturing, should be less than 10% of an individual's daily energy intake (equivalent to 12 level teaspoons), while reducing the free sugar to 5% provides additional health benefits. They also recommend reducing salt intake to less than 5g per day, which is equivalent to one teaspoon per day (WHO 2015). The WHO (2015) advised that these recommendations should be considered by member states when devising national guidelines for healthy eating. In the Republic of Ireland, the food pyramid (Figure 1) (SafeFood 2016) is used as a guide to demonstrate healthy eating.

TIME OUT 6

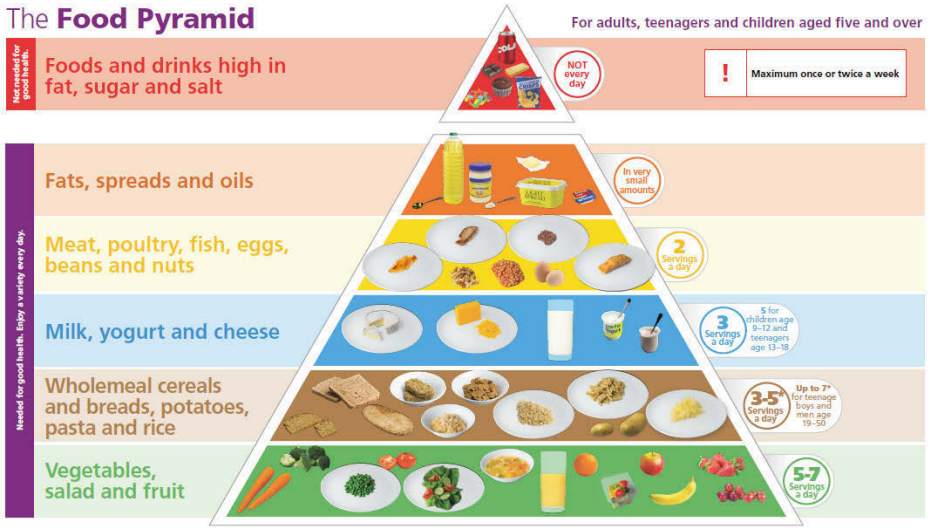
Write down what you ate yesterday. How does it compare to the recommended number of portions on each shelf of the food pyramid (Figure 1)? How many kilocalories do you think you consumed? Undertake this exercise with a university nursing student or a colleague and develop a healthy eating plan.

Following the recommendations for a healthy diet can be challenging. It is important for healthy eating practices to become habitual, because unhealthy eating practices can also become a habit. Individuals should begin by making a small change to their diet, to develop the confidence that they are able to achieve change, before undertaking bigger changes. For example, they could start by ensuring they drink eight glasses of water per day. It is often more appealing and motivational for individuals to consider adding something to their diet, rather than to consider cutting something out. This might be in the form of an increased intake of water, an increased intake of fruit and vegetables, or deciding to eating fish at least once per week. Box 4 contains practical healthy eating advice for university students.

KEY POINT

Following the recommendations for a healthy diet can be challenging. It is important for healthy eating practices to become habitual, because unhealthy eating practices can also become a habit. Individuals should begin by making a small change to their diet, to develop the confidence that they are able to achieve change, before undertaking bigger changes. For example, they could start by ensuring they drink eight glasses of water per day

Figure 1. The food pyramid



(© SafeFood 2016)

Psychological well-being and positive mental health

Keyes (2002) considered psychological well-being to be one aspect of positive functioning. Positive mental health and psychological well-being are closely related and result in increased resilience that enables an individual to cope with stressors. Positive mental health has been conceptualised in various ways, including: as a positive emotion (affect), such as a subjective sense of well-being and feelings of happiness; as a personality trait encompassing self-esteem and mastery; and as resilience during adversity and the ability to cope with life stressors (WHO 2004).

Benefits of positive mental health

Positive mental health has many benefits, including a healthier lifestyle, improved physical health, improved recovery from illness, fewer limitations in daily living and higher educational attainment (Friedli 2009). Positive mental health also leads to greater productivity, improved employment and earnings, enhanced relationships, enhanced social cohesion and engagement, and improved quality of life (Friedli 2009). Barry and Jenkins (2007) stated that 'the determinants of mental health reside in the physical and psychological make-up of the individual, their interpersonal and social surroundings and the external environmental and broader social influences'. They emphasised the importance of establishing emotional resilience in individuals to manage stress.

BOX 4. Practical healthy eating advice for university students

- Drink more water
- Avoid added sugar in hot beverages
- Eat salad with every meal – this will reduce the amounts of other foods that you eat at mealtimes
- Replace rice with quinoa, which is lower in fat and more nutritious
- Replace sugary drinks with water, and drink artificially sweetened drinks in moderation
- Eat wholemeal bread or oat bread instead of white bread
- Eat wholegrain rice and pasta
- Eat tinned fish, which is nutritious and affordable. Choose low sugar baked beans
- Include eggs in your diet. These are nutritious and affordable, and can be cooked in many different ways
- Plan your meals according to a healthy diet. Shop according to your plan and prepare a packed lunch for university. A sandwich you make for yourself is usually much lower in kilocalories than those available in sandwich bars, and will also save money
- Snack wisely and read food labels

Types of stress experienced by nursing students

Stress can manifest as physiological symptoms, such as headaches, chest pain and insomnia, or as psychological symptoms, such as anxiety, low mood and loss of concentration. However, psychological symptoms are more common than physiological symptoms (Jimenez et al 2010). Levels of psychological distress are higher in university students than in the general population (Bewick et al 2010), and the well-being of first-year university students is lower than that of the general population (Topham and Moller 2011). Pillay and Ngcobo (2010) found that academic work and fear of failing were the most prominent stressors for university students. Pulido-Martos et al (2012) found that levels of stress are higher in healthcare professionals than in other workers, while Beck et al (1997) observed that nursing students experience higher levels of psychological symptoms than students in other healthcare professions.

Psychological stress and a career in nursing are closely associated (Patterson 2016). The pressured and immediate demands of nursing in a rapidly changing healthcare environment are one reason for this (Patterson 2016). Examinations and assignments are recognised stressors for all university students (Gibbons et al 2008, Jimenez et al 2010). Nursing students experience the same academic stresses as other university students. However, they also experience stressors related to their clinical placements. The demands of clinical nursing practice are an additional source of stress and are perceived by nursing students to be greater than other stressors (Jimenez et al 2010).

Pulido-Martos et al (2012) identified that the most common sources of stress for undergraduate nursing students related to academic demands, for example their workload and problems associated with studying. Other stressors related to clinical practice, for example fear of unknown situations, or of making mistakes with patients. Pryjmachuk and Richards (2007)

identified three main sources of stress for nursing students:

- Academic stressors, for example examinations and assignment deadlines, fear of failure, evaluation and testing, and workload problems.
- Clinical stressors, for example fear of making mistakes, physical and psychological effects of witnessing death or patient suffering, and relationships with other staff in the clinical area.
- Personal and social stressors, for example economic problems, and imbalance between housework and university work.

The financial difficulties experienced by university students also affect nursing students. Historically in the UK, government funding for university fees and a living expenses bursary provided nursing students with some protection from financial difficulties. However, this is being phased out and it is anticipated that nursing students might experience further stress as they try to support themselves financially through their programme of study.

TIME OUT 7

List five sources of stress in your life and identify five strategies that could help you to reduce your stress levels.

TIME OUT 8

List three things you are grateful for today. Do this for the next seven days and note how it affects your well-being.

Coping strategies

Moodie and Jenkins (2005) found that a culture of cooperation and tolerance, a sense of belonging and strong social relationships were protective of mental health. Supportive social relationships and social engagement serve to protect and enhance mental health, and have an important role in maintaining resilience during adversity (Barry 2009). The loss or diminishment of previous social networks and the need to establish new networks are a major stressor that can have potentially harmful effects (Vaez and Laflamme 2008). Wilcox et al (2005) suggested that students rely on informal social support networks, and that the use of these networks strongly predicts positive psychological adjustment.

The psychosocial determinants of mental health for individuals are managed by interventions designed to promote cognitive and emotional resources such as self-esteem, identity, self-efficacy and resilience, and to enhance coping skills and behaviours that protect and promote mental health (Barry 2009).

Several protective factors for positive mental health have been identified, including hardiness, self-esteem, social support, optimism and positive affect (Steinhardt and Dolbier 2008). Barry and Jenkins (2007) advocated focusing on interventions that promote psychological strengths and competence. According to Fredrickson (2009), the way to achieve happiness is to cultivate positivity, and to develop resilience in the face of negativity and adversity. Therefore, positivity is an essential component of health and well-being.

Another effective means of stress reduction is mindfulness meditation, which involves 'paying attention in a particular way… on purpose, in the present moment and without judgement' (Kabat-Zinn 2013). Mindfulness meditation aims to enable individuals to develop the habit of being mindful by focusing on their breathing, rather than thinking about repetitive concerns, and creates a sense of calm that enhances relaxation and coping. There are many guided meditation apps available, for example Headspace, which individuals may find useful. There is evidence that mindfulness meditation reduces stress and anxiety, and has various other health benefits (Williams and Penman 2011).

It is essential for nursing students to maintain positive mental health and well-being to enable them to manage stress and for them to develop resilience to cope with stressors. Social support is a vital part of this process, and students should be encouraged to take a proactive approach by establishing a support network around them. It is important for students to cultivate a positive approach to issues that cause them stress, as well as adopting stress-reduction techniques, such as mindful breathing and mindfulness meditation.

KEY POINT

It is essential for nursing students to maintain positive mental health and well-being to enable them to manage stress and for them to develop resilience to cope with stressors. Social support is a vital part of this process, and students should be encouraged to take a proactive approach by establishing a support network around them. It is important for students to cultivate a positive approach to issues that cause them stress, as well as adopting stress-reduction techniques, such as mindful breathing and mindfulness meditation

Answers to time out 4
One 25g packet of crisps is 133 kilocalories; one iced doughnut is 323 kilocalories; two wholegrain biscuits are 140 kilocalories; one large chocolate muffin is 420 kilocalories; one slice of apple tart is 288 kilocalories; one 50g chocolate bar is 260 kilocalories (Food Safety Authority of Ireland 2012)

The Psychological Society of Ireland (2011) has produced practical advice for mental health, well-being and prosperity. This includes eating well, getting enough sleep, drinking alcohol in moderation, staying active, engaging in mindful breathing and finding something to be grateful for. Box 5 provides further coping strategies for students.

BOX 5. Coping strategies to maintain mental health, well-being and prosperity

- Get enough sleep and eat a healthy diet
- Drink alcohol in moderation because it is a depressive agent and will accentuate a low mood
- Establish strong social networks
- Talk to a trusted friend
- Go for a walk or a run. Exercise elevates mood and improves cognitive functioning
- Organise and plan your workload
- Use 'plan-ful' problem solving, by writing down and working through difficulties
- Familiarise yourself with the support available for students. Ask advice from your student welfare officer
- Use the university counselling service. Ask for help when you need it – this shows that you are taking responsibility for your health and well-being and is not a sign of weakness
- Take a strengths-based approach to your studies, for example by focusing on what is working well
- Cultivate positivity, for example by keeping a gratitude diary
- Practise mindfulness meditation

(Adapted from The Psychological Society of Ireland 2011)

Conclusion

It is essential for nursing students to attend to their health and well-being to become effective healthcare professionals. Diet, physical activity and psychological well-being are three important aspects of lifestyle that nursing students should manage to maintain their health and well-being. A nutritionally balanced diet is essential to health, although this may be challenging for students to achieve. Nursing students should be aware of the physical and psychological benefits of engaging in physical activity, and the negative health effects associated with inactivity. Nursing students are encouraged to engage with their peers, who can provide social support, to maintain their psychological well-being and to develop strategies to cope with the stressors they experience. Improving lifestyle behaviours in any one of these aspects may have a positive effect on the other aspects.

TIME OUT 9

Nurses are encouraged to apply the four themes of The Code (NMC 2015) to their professional practice. Consider how knowledge of healthy lifestyle behaviours and well-being relates to the themes.

TIME OUT 10

Now that you have completed the article you might like to write a reflective account as part of your revalidation.

References

Barry MM (2009) Addressing the determinants of positive mental health: concepts, evidence and practice. International Journal of Mental Health Promotion. 11, 3, 4-17.

Barry M, Jenkins R (2007) Implementing Mental Health Promotion. Churchill Livingstone, Oxford.

Beck DL, Hackett MB, Srivastava R et al (1997) Perceived level and sources of stress in university professional schools. Journal of Nursing Education. 36, 4, 180-186.

Bewick B, Koutsopoulou G, Miles J et al (2010) Changes in undergraduate students' psychological well-being as they progress through university. Studies in Higher Education. 35, 6, 633-645.

Brougham RR, Zail CM, Mendoza CM et al (2009) Stress, sex differences, and coping strategies among college students. Current Psychology. 28, 2, 85-97.

Caspersen CJ, Powell KE, Christenson GM (1985) Physical activity, exercise and physical fitness: definitions and distinctions for health-related research. Public Health Reports. 100, 2, 126-131.

Department of Health and Children, Health Service Executive (2009) The National Guidelines on Physical Activity for Ireland. http://health.gov.ie/wp-content/uploads/2014/03/active_guidelines.pdf (Last accessed: 26 January 2017.)

Department of Health, the Department of Transport, Tourism and Sport (2016) Get Ireland Active! National Physical Activity Plan for Ireland. www.getirelandactive.ie/Professionals/National-PA-Plan.pdf (Last accessed: 26 January 2017.)

Egli T, Bland HW, Melton BF et al (2011) Influence of age, sex, and race on college students' exercise motivation of physical activity. Journal of American College Health. 59, 5, 399-406.

Ekelund U, Ward HA, Norat T et al (2015) Physical activity and all-cause mortality across levels of overall and abdominal adiposity in European men and women: the European Prospective Investigation into Cancer and Nutrition Study (EPIC). American Journal of Clinical Nutrition. 101, 3, 613-621.

Fedewa MV, Das BM, Evans EM et al (2014) Change in weight and adiposity in college students: a systematic review and meta-analysis. American Journal of Preventative Medicine. 47, 5, 641-652.

Ferrara C (2009) The college experience: physical activity, nutrition, and implications for intervention and future research. Journal of Exercise Physiology. 12, 1, 23-35.

Fielder-Jenks C, Chelsea R (2010) Can health behaviors and motives predict college students' self-esteem? Journal of Undergraduate Research. 15, 3, 143-149.

Food Safety Authority of Ireland (2011) Scientific Recommendations for Healthy

Eating Guidelines in Ireland. FSAI, Dublin.

Food Safety Authority of Ireland (2012) Healthy Eating and Active Living for Adults, Teenagers and Children over 5 Years: A Food Guide for Health Professionals and Catering Services. Food Safety Authority of Ireland, Dublin.

Fredrickson BL (2009) Positivity: Groundbreaking Research Reveals how to Embrace the Hidden Strength of Positive Emotions, Overcome Negativity, and Thrive. Crown, New York NY.

Friedli L (2009) Mental Health, Resilience and Inequalities. WHO Europe, Copenhagen.

Gibbons C, Dempster M, Moutray M (2008) Stress and eustress in nursing students. Journal of Advanced Nursing. 61, 3, 282-290.

Gortmaker SL, Swinburn B, Levy D et al (2011) Changing the future of obesity: science, policy, and action. The Lancet. 378, 9793, 838-847.

Gropper SS, Simmons KP, Gaines A et al (2009) The freshman 15-a closer look. Journal of American College Health. 58, 3, 223-231.

Health Service Executive (2010) HSE Framework for Action on Obesity 2008-2012. www.thehealthwell.info/sites/default/files/hse1.pdf (Last accessed: 26 January 2017.)

Ipsos MRBI (2015) Health Ireland Survey 2015: Summary of Findings. The Stationery Office, Dublin.

Irish Heart Foundation (2010) IHF says 5 Years on, Little Done to Tackle Obesity. www.irishheart.ie/iopen24/says-years-little-done-tackle-obesity-n-267.html (Last accessed: 26 January 2017.)

Jimenez C, Navia-Osorio PM, Diaz CV (2010) Stress and health in novice and experienced nursing students. Journal of Advanced Nursing. 66, 2, 442-455.

Kabat-Zinn J (2013) Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain, and Illness. Revised edition. Random House, New York NY.

Keating XD, Guan J, Piñero JC et al (2005) A meta-analysis of college students' physical activity behaviours. Journal of American College Health. 54, 2, 116-125.

Keyes CLM (2002) The mental health continuum: from languishing to flourishing in life. Journal of Health and Social Research. 43, 2, 207-222.

Lacaille LJ, Dauner KN, Krambeer R et al (2011) Psychosocial and environmental determinants of eating behaviours, physical activity, and weight change among college students: a qualitative analysis. Journal of American College Health. 59, 6, 531-538.

Lee IM, Shiroma EJ, Lobelo F et al (2012) Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy. The Lancet. 380, 9838, 219-229.

Levitsky DA, Halbmaier A, Mrdjenovic G (2004) The freshman weight gain: a model for the study of the epidemic of obesity. International Journal of Obesity and Related Metabolic Disorders. 28, 11, 1435-1442.

Lloyd-Richardson EE, Bailey S, Fava JL et al (2009) A prospective study of weight gain during the college freshman and sophomore years. Preventive Medicine. 48, 3, 256-261.

Lunn P, Kelly E, Fitzpatrick N (2013) Keeping Them in the Game: Taking up and Dropping out of Sport and Exercise in Ireland. Research Series No. 33. www.esri.ie/pubs/RS33.pdf (Last accessed: 26 January 2017.)

Malhotra A, Noakes T, Phinney S (2015) It is time to bust the myth of physical inactivity and obesity: you cannot outrun a bad diet. British Journal of Sports Medicine. 49, 15, 967-968.

McSharry P, Timmins F (2016) An evaluation of the effectiveness of a dedicated health and well being course on nursing students' health. Nurse Education Today. 44, 26-32.

Moodie R, Jenkins R (2005) I'm from the government and you want me to invest in mental health promotion. Well why should I? Promotion and Education. Suppl 2, 37-41.

Mooney E, Farley H, Strugnell C (2009) A qualitative investigation into the opinions of adolescent females regarding their body image concerns and dieting practices in the Republic of Ireland (ROI). Appetite. 52, 2, 485-491.

Morgan K, McGee H, Watson D et al (2008) SLAN 2007: Survey of Lifestyle, Attitudes and Nutrition in Ireland: Main Report. Department of Health and Children, Dublin.

Morgan AJ, Parker AG, Alvarez-Jimenez M et al (2013) Exercise and mental health: an exercise and sports science australia commissioned review. Journal of Exercise Physiology. 16, 4, 64-73.

Neumark-Sztainer D, Haines J (2004) Psychosocial and behavioural consequences of obesity. In Thompson JK (Ed) Handbook of Eating Disorders and Obesity. Wiley, Hoboken NJ, 349-371.

Nikander R, Sievänen H, Heinonen A et al (2005) Femoral neck structure in adult female athletes subjected to different loading modalities. Journal of Bone and Mineral Research. 20, 3, 520-528.

Nursing and Midwifery Council (2015) The Code: Professional Standards of Practice and Behaviour for Nurses and Midwives. NMC, London.

NutriStrategy (2015) Calories from Fat, Protein, Carbohydrates, Alcohol. www.nutristrategy.com/nutrition/calories.htm (Last accessed: 26 January 2017.)

O'Connell J (2012) Management of obesity: lessons learned from a multidisciplinary team. European Diabetes Nursing. 9, 1, 26-29.

Patterson SL (2016) The effect of emotional freedom technique on stress and anxiety in nursing students: a pilot study. Nurse Education Today. 40, 104-110.

Pillay AL, Ngcobo HSB (2010) Sources of stress and support among rural-based first-year university students: an exploratory study. South African Journal of Psychology. 40, 3, 234-240.

Pontzer H, Durazo-Arvizu R, Dugas LR et al (2016) Constrained total energy expenditure and metabolic adaptation to physical activity in adult humans. Current Biology. 26, 3, 410-417.

Pryjmachuk S, Richards DA (2007) Predicting stress in pre-registration nursing students. British Journal of Health Psychology. 12, 1, 125-144.

Pulido-Martos M, Augusto-Landa JM, Lopez-Zafra E (2012) Sources of stress in nursing students: a systematic review of quantitative studies. International Nursing Review. 59, 1, 15-25.

SafeFood (2014) Consumer Understanding of Food Portion Sizes: Summary Report. www.safefood.eu/SafeFood/media/SafeFoodLibrary/Documents/Publications/Research%20Reports/portion-size-report_final201114.pdf (Last accessed: 26 January 2017.)

SafeFood (2016) The Food Pyramid. www.safefood.eu/Healthy-Eating/What-is-a-balanced-diet/The-Food-Pyramid.aspx (Last accessed: 26 January 2017.)

Shepherd J, Harden A, Rees R et al (2006) Young people and healthy eating: a systematic review of research on barriers and facilitators. Health Education Research. 21, 2, 239-257.

Steinhardt M, Dolbier C (2008) Evaluation of a resilience intervention to enhance coping strategies and protective factors and decrease symptomatology. Journal of American College Health. 56, 4, 445-453.

Swinburn BA, Sacks G, Hall K et al (2011) The global obesity pandemic: shaped by global drivers and local environments. 378, 9793, 804-814.

The Psychological Society of Ireland (2011) The Psychological Society of Ireland's 40 (Practical) Tips for Mental Health, Well-Being and Prosperity. www.psihq.ie/files/UserFiles/PSI%2040%20Tips%20Flyer%200511%20Web%20.pdf (Last accessed: 26 January 2017.)

Topham P, Moller P (2011) New students' psychological well-being and its relation to first year academic performance in a UK university. Counselling and Psych otherapy Research. 11, 3, 196-203.

Trew K, Barnett J, Stevenson C et al (2005) Young People and Food: Adolescent Dietary Beliefs and Understandings: Research Summary. SafeFood, Dublin.

Vadeboncoeur C, Townsend N, Foster C (2015) A meta-analysis of weight gain in first year university students: is freshman 15 a myth? BMC Obesity. 2, 22.

Vaez M, Laflamme L (2008) Experienced stress, psychological symptoms, self-rated health and academic achievement: a longitudinal study of Swedish university students. Social Behavior and Personality. 36, 2, 183-196.

Walker P (2011) Half of UK men could be obese by 2030. www.theguardian.com/society/2011/aug/26/half-uk-obese-by-2030 (Last accessed: 26 January 2017.)

Warburton DER, Nicol CW, Bredin SSD (2006) Health benefits of physical activity: the evidence. CMAJ. 174, 6, 801-809.

Wen CP, Wai JPM, Tsai Mk et al (2011) Minimum amount of physical activity for reduced mortality and extended life expectancy: a prospective cohort study. The Lancet. 378, 9798, 1244-1253.

Wilcox P, Winn S, Fyvie-Gauld M (2005) 'It was nothing to do with the university, it was just the people': the role of social support in the first-year experience of higher education. Studies in Higher Education. 30, 6, 707-722.

Williams M, Penman D (2011) Mindfulness: A Practical Guide to Finding Peace in a Frantic World. Little, Brown Book Group, London.

World Health Organization (2004) Promoting Mental Health: Concepts, Emerging Evidence, Practice. Summary Report. WHO, Geneva.

World Health Organization (2007) Steps to Health: A European Framework to Promote Physical Activity for Health. WHO Europe, Copenhagen.

World Health Organization (2009) Global Health Risks: Mortality and Burden of Disease Attributable to Selected Major Risks. WHO, Geneva.

World Health Organization (2015) Healthy Diet. Fact Sheet No. 394. www.who.int/mediacentre/factsheets/fs394/en (Last accessed: 26 January 2017.)

World Health Organization (2016a) Physical Activity. Fact Sheet. www.who.int/mediacentre/factsheets/fs385/en (Last accessed: 26 January 2017.)

World Health Organization (2016b) Obesity and Overweight. www.who.int/mediacentre/factsheets/fs311/en (Last accessed: 26 January 2017.)

RCNi Learning

Enhance your skills and meet personal CPD requirements for revalidation with our interactive, online learning resource

RCNi Learning gives you access to 198 RCN-accredited modules. The modules cover 43 topics including communication, cancer, acute care, mental health and many more.

There's also an app that lets you learn on the go, even without access to the internet.

Want to try before you buy?

Register for our three FREE modules today

rcnilearning.com

RCNi

Healthy lifestyle behaviours

TEST YOUR KNOWLEDGE BY COMPLETING SELF-ASSESSMENT QUESTIONNAIRE 880

1. Which of the following may be an effect of transitioning to university for some students?

a) Decreased physical activity ☐
b) Suboptimal diet ☐
c) Stress ☐
d) All of the above ☐

2. Which of the following is not a benefit of healthy eating?

a) Obesity ☐
b) Improved overall well-being ☐
c) Reduced dental caries ☐
d) Improved cognitive function ☐

3. Which of the following may not be a health effect of inactivity?

a) Increased risk of coronary heart disease ☐
b) Increased risk of diabetes ☐
c) Increased weight loss ☐
d) Increased risk of some types of cancer ☐

4. What is the minimum recommended level of physical activity for people aged 18-64 years?

a) 20 minutes per day, 3 days per week ☐
b) 20 minutes per day, 5 days per week ☐
c) 30 minutes per day, 3 days per week ☐
d) 30 minutes per day, 5 days per week ☐

5. How many kilocalories does 1g of fat contain?

a) 3 ☐
b) 6 ☐
c) 9 ☐
d) 12 ☐

6. How many calories are required daily by a sedentary female?

a) 1,800 ☐
b) 2,000 ☐
c) 2,200 ☐
d) 2,400 ☐

7. How many calories are required daily by an active male?

a) 1,600-2,000 ☐
b) 2,000-2,400 ☐
c) 2,400-2,800 ☐
d) 2,800-3,200 ☐

8. What does BMR stand for?

a) Body mass at rest ☐
b) Body mass ratio ☐
c) Basal metabolic rate ☐
d) Basic medical response ☐

9. Which of these is not a symptom of stress?

a) Improved concentration ☐
b) Insomnia ☐
c) Headache ☐
d) Anxiety ☐

10. Which of the following strategies can be used by nursing students to maintain mental health and well-being?

a) Mindfulness meditation ☐
b) Building strong social support networks ☐
c) Using the university counselling service ☐
d) All of the above ☐

This self-assessment questionnaire was compiled by ***Henrietta Cole***

The answers to this questionnaire will be published on ***22 February***

The answers to ***SAQ 878*** *on* ***obesity and type 2 diabetes****, which appeared in the* ***25 January*** *issue, are:*

1. b 2. c 3. b 4. a 5. d 6. c 7. d 8. b 9. c 10. d

How to complete this assessment

This self-assessment questionnaire will help you to test your knowledge. It comprises ten multiple choice questions that are broadly linked to the article starting on page 51. There is one correct answer to each question.

- You can test your subject knowledge by attempting the questions before reading the article, and then go back over them to see if you would answer any differently.
- You might like to read the article before trying the questions. The correct answers will be published in Nursing Standard on 22 February.

Subscribers making use of their RCNi Portfolio can complete this and other questionnaires online and save the result automatically.

Alternatively, you can cut out this page and add it to your professional portfolio. Don't forget to record the amount of time taken to complete it.

You may want to write a reflective account based on what you have learned. Visit journals.rcni.com/r/reflective-account