Worksheet 7.2

Additional practice questions for Chapter 7

1. Explain factors related to the development of substance abuse or addictive behaviour. [22 marks]
2. Discuss prevention strategies and treatments for overeating and obesity. [22 marks]
3. Discuss the effectiveness of health promotion strategies. [22 marks]

Answer guidelines

1. The command term explain asks you to give a detailed account and explain the underlying rationale.

   You need to clearly identify the substance you have studied: alcohol.

   You should start with the definition of a substance. A substance is anything an individual ingests to alter their cognition (thought processes), behaviour or affective state (mood). There is a social paradigm to substance abuse as a person is said to be addicted when the behaviour leads to a significant impairment in their ability to meet their obligations in employment, relationships and/or the community.

   The factors we considered were physiological and sociocultural (including advertising). These are broad terms and you need to break them down further.

   **Physiological factors**

   Cross (2004) cites Enoch who speculates genetic predisposition manifests itself in different ways in different racial and cultural groups. Enoch speculates a certain genotype may lead to an anxious personality and Europeans who have this type of personality may drink to relieve anxiety as is the norm in this culture. However, in native Americans, the same genotype may protect against drinking excesses as the individual will be more sensitive to the effects of alcoholism and seek to avoid them. Lingford–Hughes found fewer GABA receptors in the frontal lobes of alcoholics’ brains compared to non-alcoholics. GABA and its receptors are thought to be involved in calming the body. So fewer of them suggests a greater susceptibility to anxiety and, therefore, an increased likelihood for alcohol consumption in certain cultural groups (also cited in Cross, 2004).

   You should note for the examiner: Genetic predisposition does not determine behavioural destiny – biological architecture does not automatically mean an individual will become an alcoholic.

   **Sociocultural factors**

   Social learning theory assumes behaviour is the result of reinforcement, punishment or observational learning. In the West, alcohol advertising is widespread. Saffer and Dave (2003) found heavy...
advertising by the alcohol industry in the USA has such considerable influence on adolescents that its removal would reduce underage drinking. Their analysis suggests eliminating alcohol advertising in a local setting could reduce monthly drinking by adolescents from about 25% to about 21%, and binge drinking from 12% to around 7%.

Snyder et al (2006) found that youths who saw more alcohol advertisements drank more on average. Dring and Hope (2001) studied the impact of alcohol advertising in Ireland and found that alcohol advertisements were identified as their favourites by the majority of teenagers surveyed. Most of the teenagers believed the majority of the alcohol advertisements were targeted at young people. The teenagers interpreted alcohol advertisements as suggesting, contrary to the code governing alcohol advertising, that alcohol is a gateway to social and sexual success and as having mood altering and therapeutic properties (cited in the Institute of Alcohol Studies fact sheet).

2 The command term discuss asks you to present a considered and balanced review that includes a range of arguments, factors or hypotheses. Opinions or conclusions should be presented clearly and supported by appropriate evidence.

In this context, ‘balanced’ means making an appraisal by weighing up the strengths and limitations of each treatment and prevention strategy.

You need to outline the strengths and limitations of education, political intervention, grass roots movements, dieting, self-help groups and surgery. You may want to develop the notion of volition as an overriding theme – the idea that few prevention strategies or treatments can be effective until people want to lose weight.

The question is plural in nature. You need to discuss more than one strategy and treatment. You also need to clearly divide your answer between prevention strategies and treatments.

**Prevention strategies**
These aim to curb behaviour and influence opinion before the onset of obesity.

- Political intervention is a top-down approach from local or national governments. They can mandate laws regarding zoning – laws which govern where fast food outlets can open. Currently, fast food outlets are often in abundance in predominantly poor areas and this has an impact on wider community health. Mair et al (2005) cite Ashe et al (2003) who discuss how local communities can use zoning laws to create a retail market offering healthier foods – wealthier neighbourhoods have been shown to have over three times as many supermarkets as the lowest-wealth neighbourhoods. Supermarkets have been linked with healthier diets because a greater range of food is available than from fast food outlets. At the same time, residents of poorer areas have less access to private transport thereby limiting their chances of visiting places with healthier food available.

- The USA can be criticized for high levels of obesity but it is also the home of a significant
number of community-based organizations which aim to benefit people – often overcoming political or corporate power in order to do so. Groups such as the Campaign to End Obesity, Two Angry Moms, Queen of Hearts Foundation, the National Action Against Obesity (NAAO) and Obesity Action have made a significant contribution to the community landscape via media appearances, school visits and local organizing. According to Otto and Aratani (2006) many school districts in the USA have now banned soft drinks, junk foods and sweets from school vending machines and cafeterias in response to pressure from parents and anti-obesity groups.

_Treatments_
Treatments for obesity approach the problem after it has occurred.

- Geissler and Powers (2005) argue the key to weight loss is new habits associated with food and exercise. A healthy diet is not the same as dieting. Dieting is associated with a food programme designed to limit energy intake. Therefore, by definition, the individual has to consume less energy than he or she uses over period of time. Many people who wish to lose weight find that diets do not work. Geissler and Powers argue that high levels of compliance and motivation, and a willingness to accept new diets and lifestyles are needed for dieting process to be a success. These standards are often difficult to achieve and patients who undergo weight loss trials can be dishonest about what they eat. To improve adherence, consideration should always be given to a patient’s food preferences as well as educational and socio-economic circumstances. Achieving behavioural as well as cognitive change – seeing food in a new way and understanding the challenges – is the key to success with dietary weight-loss programmes.

- Gastric bypass procedures (GBP) are an extreme approach to treatment. These refer to surgeries leading to a marked reduction in the functional volume of the stomach, accompanied by an altered physiological and psychological response to food. The aim of the surgery is to reduce the amount of food consumed as well as making the patient feel a level of fullness after ingesting only a small amount of food. However, the reduced size of the stomach pouch means a very disciplined approach to food is needed for the rest of the patient’s life if the person is to receive adequate nutrition. Also, there is a danger of death connected with the procedure. There are other complications: Adams et al (2005) researched 43 post-operative patients and discovered that almost all of them tested positive for a hydrogen breath test, suggesting an overgrowth of bacteria in the small intestine. The overgrowth of bacteria causes the gut ecology to change and induces nausea and vomiting. Recurring nausea and vomiting change the rate at which food is absorbed and this exacerbates the vitamin and nutrition deficiencies common in gastric bypass patients. The change in internal structure of food-absorption areas also prohibits the adequate absorption of some essential minerals and nutrients and a carefully designed diet has to be followed as a result. However, psychological change enables most patients to enjoy participation in family and social activities which they previously could not enjoy because of
their obesity.

3 The command term discuss asks you to present a considered and balanced review that includes a range of arguments, factors or hypotheses. Opinions or conclusions should be presented clearly and supported by appropriate evidence.

In this context, ‘balanced’ means making an appraisal by weighing up the strengths and limitations.

You need to clearly define health promotion strategies. Health promotion can be defined as the science and art of helping people change their lifestyle to move toward a state of optimal health (Minkler, 1989). Health promotion strategies have to be measurable to determine their success as well as influence future policy. We looked at a measurement of outcomes approach and population health approach (e.g. workplace health promotion). You should clearly state that for health promotion strategies to be effective they have to induce cognitive dissonance but emotional dissonance should also be taken into account when considering any strategy designed to cause cognitive dissonance.

**Measurement of outcomes approach**

The measurement of outcomes perspective uses an evidence-based treatment (EBT) approach and rests on the assumption that research into health campaigns has to produce statistically significant data to show an effect of the health strategy. It is an attempt to standardize the measurement of health and the effects of treatments or interventions.

EBT approaches consider the notions of:

- efficacy – the relative improvement in health as the result of an intervention in a controlled randomized trial (essentially a scientific based approach)
- effectiveness – the relative improvement in health as the result of an intervention in a more realistic, everyday setting.

**Advantages**

- Differences between efficacy and effectiveness can be identified.
- EBT can help identify hazardous interventions which may only show up in large datasets.
- EBT is used to monitor changes during treatment over time. Setting up a scientific approach to data collection negates the effects of subjective variables such as individual memories.

**Disadvantages**

- EBT requires a clearly defined population and a reasonable control of variables within it – this is often unrealistic.
- Reliance on the underlying scientific principles of EBT is unrealistic as many non-measurable
variables (e.g. culture and self-belief) affect health outcomes.

- Appraisals of health should always consider the everyday and personalized variables that may influence susceptibility to campaigns and the will power to adopt healthier personal habits. These are difficult to quantify.

**Population health approach**

Population health approach (PHA) is defined as health promotion actions which are primarily targeted at the societal, community, structural or systems level.

Using a PHA has many advantages as it requires the collaboration of multiple agencies (government, business and voluntary organizations) working in the fields of environment, transport, education and corporate regulation as well as health.

However, as a macro method a PHA has inherent disadvantages. According to Frohlich and Potvin (2008), population-approach interventions may be compromised by inconsistencies between the social and cultural assumptions of public health practitioners and the targeted groups at whom the health promotion strategy was aimed. Therefore, any PHA has to take account of the various cultural and sub-cultural subtleties of those groups in wider society. Such groups include women and men and varying ages, religious affiliation, sexual orientation, cultural background and dietary habits. Different sub-cultures may have differences regarding local health providers and resources, attitudes to health, and different behaviours stemming from cultural background and norms, education levels, transport needs, incomes and experiences with health care professionals (e.g. homophobia, racism and sexism).

A more focused area for health promotion is the workplace. This is an area where people spend a significant amount of time and which can also influence mental, social and economic well-being. Workplace health promotions might also be called ‘workplace health promotion programmes’ or ‘worksite wellness programmes’ and they promote activities such as exercise and stress management as well as information about nutrition and how to stop smoking. In this way, employees can be taken out of sub-cultural groups (as they are simply under the same banner of ‘employee’) and have health information delivered through a workplace paradigm. Workplace health promotion is therefore very effective at reaching large numbers of people from different cultural groups who would not ordinarily gather in one place.

Chapman (2005) conducted a review of worksite health promotion and outlined a series of meta-analysis studies published between 1982 and 2005. He found worksite health promotion produced on average a decrease of 26.8% in sick leave absenteeism, a decrease of 26.1% in health costs and a decrease of 32% in workers’ compensation costs. Another effective aspect of worksite health promotion is that it provides a ready-made large audience for health promotion messages.