2 Health Care Services as a Health Determinant and Health Research Methods

Learning Objectives

In this chapter, you will learn to

- Understand the complex relationship between health care and health;

- Appreciate the strengths and limitations of various health research methods.

Chapter Overview

The chapter begins by explaining the difference between health and health care services. Health care services cannot be equated with health since individuals seek these services only when they are not feeling well. Many people seek health care services in situations where conventional medicine cannot help, such as in the cases of chronic pain or a headache. The chapter then demonstrates how social needs are sometimes translated into medical needs and introduces the concept of medicalization. We must distinguish between consumer and patient—both seeking health care services but are treated differently in the Canadian health care system.

Health care systems cannot be equated with health because, for the most part, health care systems are dealing with a small segment of the population. Health care interventions are not the best route for promoting health. Using the examples from preventive medicine, such as screening and early interventions, the chapter demonstrates that such measures can actually lead to no change in population health and even worsen the health of individuals. Medications and interventions that are used for preventing certain conditions often focus on modifying risk factors for developing a medical condition rather than on health outcomes.

The chapter then touches on the issues of equity in access to health care. Stigma, racism, rural residency, and poverty are key barriers for accessing health care services. The financing structure of the Canadian health care system means that many individuals in Canada do not have access to health care services that can address their needs. Politics play a central role in determining which medical services are considered to be medically necessary. The section on public health demonstrates how public health measures, such as immunizations, can advance population health.

The final section of the chapter focuses on health research methods. In this section, we come to see the differences between observational and experimental studies and identify some challenges of making inferences about efficacy of treatments based on the conclusions drawn from these studies.

Key Terms and Concepts

Case control study a study that looks specifically at the association between a factor and a disease (p. 66)

Confounding when the association found between the observed variables are due to an additional variable that was not observed in the study (p. 64)

Cross-sectional study a type of research design that involves collecting data from a specified point in time (p. 63)

Cultural safety culturally safe care is the one where individuals are not subjected to discrimination because of their culture, ethnicity, or other characteristic (p. 56).

Experimental studies the type of research design where the events are manipulated in order to test one or more hypotheses about the relationship among the variables of interest (p. 63)

Generalizability the issue of whether or not the findings can legitimately be extended to other cases (p. 71)

Herd immunity achieving immunity to a certain condition in the population (p. 62)

Incidence how many cases occur over a specific period of time (p. 67)

Informal care care provided in an informal setting or by informal caregivers (p. 48)

Medicalization a process by which non-medical conditions are being socially constructed as medical (p. 48)

Observational studies –studies that collect information about what already exists (p. 63)

Odds ratio the odds that the outcome will occur under a particular condition/exposure (p. 66)

Prevalence a total number of cases at a point in time (p. 67)

Preventive medicine aims to identify health risks, the earlier the better, and to execute interventions that modify those risks, thus reducing the probability of adverse health outcomes (p. 50)

Primary care patient's first contact with health care system (p. 50)

Prophylactic drug therapy drug therapy that is used for preventing diseases (p. 51)

Random selection each individual from the population is chosen by chance and has an equal probability of being selected (p. 68)

Recall bias a problem of recalling the accuracy of an event in studies that utilize self-reporting (p. 67)

Relative risk the ratio of the probability of an outcome in exposed and control groups (p. 67)

Significant difference differences that exceed what is likely to have occurred by chance alone (p. 68)

Social care non-health-care-system services that are nevertheless central to people's health and well-being (p. 60)

Supplementary health insurance a private health insurance which is supplementary to the provincial health care plans (p. 60)

Validity truth value of the findings (p. 70)

Study Questions

Scroll down for answers.

1. Identify the two constraints for identifying a problem that can fall under the jurisdiction of health care system in Canada.

2. Define medicalization and give an example of a condition that was medicalized in Canada.

3. Define preventive medicine.

4. Explain whether or not the health care system is really about health.

5. Identify some common barriers to care in Canada.

Critical Thinking Questions

Scroll down for answers.

1. Discuss the boundaries between health care system and the social and consumer care services. Using specific examples, show how these boundaries have changed in Canada. What, in your opinion, contributes to this change?

2. Explain the differences between patients and consumers in health care system. Are there are real differences between them?

3. Discuss the differences between modifying risks versus modifying health outcomes. Explain how these two goals of treatments might be confused.

4. Explain the differences between public and private goods. How these can be applied to health care interventions?

5. Explain which type of research design can be used for identifying causality among the variables. Why this research design is suitable for this task?

Annotated Multimedia Resources

1. Ted Talk with Ivan Oransky: Are We Overmedicalized?
   https://www.ted.com/talks/ivan_oransky_are_we_over_medicalized?language=en (10 min).

In this talk, Ivan Oransky, the reporter from Reuters, suggests that we might rely too much on health care and on preventative measures and suggests that we ought to be more critical about the process of medicalization.

2. Vaccines and Herd Immunity
   https://www.youtube.com/watch?v=kLUzwT9tWxY&feature=youtu.be (4:49 min)
   This video explains how individuals' vaccinations can positively influence population health. The concept of herd immunity is explained and demonstrated.

3. Relative Risks
   https://www.youtube.com/watch?v=felIAwyaGFM&feature=youtu.be (10:40 min).
   This video is designed by the The National Collaborating Centre for Methods and Tools. The video explains the concept of the relative risk and uses examples to illustrate how this concept applies to public health problems.

4. Epidemiological Studies
   https://www.youtube.com/watch?v=Jd3gFT0-C4s&feature=youtu.be (9:42 min)
   This is a short educational video that shows basic design of epidemiological studies.

5. Overdiagnosis and Its Implications
   https://www.cbc.ca/news/canada/calgary/thyroid-cancer-diagnosis-university-calgary-1.4246701
   This news article from CBC discusses the problem of overdiagnosis by looking at the thyroid cancer.

6. Decision Making on the Screening Age for Mammograms.
   https://globalnews.ca/news/3370659/mammogram-age-canada/amp/
   This article from Global News discusses the division among physicians regarding the age for prophylactic mammography.

7. Randomized Control Studies and Confounding
   https://www.youtube.com/watch?v=7ybuE39BpQ8 (4 min)
   This video shows Dr Greg Martin who explains how randomized control studies address the issue of confounding.

8. Cohort and Case Control Studies
   https://www.youtube.com/watch?v=J3GHTYa-gZg (4:22 min)
   In this video, Dr Greg Martin explains the differences between cohort and case control studies.

Answers to Study Questions

1. The first is that there must be a known and trusted treatment for the problem. The second is that the doctors must accept that the problem is medical in nature (p. 47)
2. Medicalization is a process by which some conditions that were not previously defined as medical become to be seen as medical. The treatment for depression using SSRIs and the treatment of erectile dysfunction are two examples of medialization of conditions that were previously not under the domain of medicine (p. 48).
3. Preventive medicine aims to identify health risks, the earlier the better, and to execute interventions that aim to modify those risks thus reducing the probability of adverse health outcomes (p. 50).
4. The health care system is not about health. A healthy person does not go to seek medical care. Sick people and those who are in distress are the ones that seek medical care (p. 49)
5. Barriers to care among Canadians include stigma, rural residency, poverty, and racism (pp. 56–57)

Answers to Critical Thinking Questions

1. The boundaries between health care system and social and consumer services are flexible. A number of examples, including erectile dysfunction or treatment for depression, can be brought to demonstrate how some problems that were considered to be not under medical jurisdiction have become medicalized. Pharmaceutical developments and political interest drive these decisions (p. 48).
2. We speak about patients when we cover the costs of health care for the individuals, but when the same procedure is considered to be medically unnecessary, the patient becomes a consumer and pays out of pocket. The same nose job—rhinoplasty—can be considered medically necessary (if it was caused by a disease/needs to be treated to prevent medical problem) or medically unnecessary (if it is done for cosmetic purposes) and will be covered by provincial health insurance if medically warranted and would not be covered if medically unwarranted. It seems that the only difference is in how we perceive a particular condition (pp. 48–49).
3. Often time the medications that are designed to modify health risks are mistakenly assumed to be modifying health outcomes. But these should not be confused. The fact that medication helps lower cholesterol, for instance, suggests that this medication is effective in modifying a risk factor for developing a heart disease, but it does not automatically mean that it is helpful in reducing heart disease (p. 52).
4. Public goods are for everyone to enjoy whereas private goods are individualized and can be considered a property. For instance, the street light is a public good—anyone can benefit from it but it does not belong to anyone in particular—whereas someone's house is a private good and only that person benefits from living in it. Health care can be considered public good but can also be considered private good, depending on the point of view. Some health care services—such as public health measures—can be considered public good but others—a visit to a physician for discussing a specific medical problem—are personal problems of individuals (p. 58).
5. Experimental studies are the only studies that can be used to identify causality. This is because in this type of design we can manipulate variables to influence temporality. Only if we know that one variable came before the other and influenced the other we can claim causality (p. 64).