Epidemiological research analysis of previous studies

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Research methods are numerous in psychological research. Choosing the appropriate method for a particular study is important. This paper is an analysis of epidemiological research within two studies. Summaries of the " Framingham study" and the " DSM-IV personality disorders and coronary heart disease in older adults" article will help show how epidemiological research applied to both. Looking at primary objectives of the study, the conditions that must be met, contributions of the results, and the strengths and limitations of the study will demonstrate how epidemiological research applied to the study.

Summary of Framingham study

The Framingham study launched in 1947, in a town called Framingham, Massachusetts. From 1947 to 1950, the Framingham heart study attained iconic status in the epidemiological imagination (Oppenheimer, 2005). Previous to this study, there was not much information obtained of coronary heart disease. Epidemiology mainly involved the study of infectious disease. Framingham's initial investigator was Thomas Dawber (who succeeded Meadors in 1950). In Dawber's direction, the research crystallized into the structure we celebrate (ncbi. nlm. nih. gov). In 1948, the first participants in the Framingham Study underwent their first examination. All 6, 000 (approximately) participants were volunteers and residents within the town. This study is now on its third generation of participants. Because of the Framingham Heart Study, more than 1000 medical papers have been

published (Oppenheimer, 2005). Assumed factors influencing cardiac health are lifestyle, environmental factors, and inheritance. After conducting the experiment, these assumptions were determined to be true. In the 1950's, doctors had very little knowledge on how to reduce, repair, or prevent coronary heart disease. The Framingham Study confirmed that hypertension (high blood pressure) and hypercholesterolemia (elevated serum cholesterol) were not the normal part of the aging process (Oppenheimer, 2005). In the 1950's and earlier, it was once believed that clogging of the arteries and narrowing of the arteries was a normal part of aging. It is, in fact, not the normal.

Throughout the years, the Framingham study led researchers to many more important findings. Good diet and regular exercise were found to be contributing factors to avoiding heart disease. The early stages of testing showed cigarette smoking is highly significant to heart disease. From the 1970's to the 2000's, this study led to the findings: high blood pressure increasing stroke, high levels of HDL cholesterol reduce heart disease, having an enlarged left ventricle of the heart also increases stroke, high blood pressure may progress heart failure, and having prehypertension leads to a lifetime risk of developing high blood pressure to 90% (Oppenheimer, 2005). One issue with the study is determining how closely the people within the study are to actual patients. It was important to determine if those in the study can relate to others who are truly seeking medical attention due to heart related issues. This study is already on its third generation and has some continued difficulty gaining contact information given by subjects 30 or more years ago.

Although there are few limitations on this study, it is considered a landmark in epidemiological research. This study has brought all new information forward regarding heart health diseases, prevention, and treatments. To this day, scientists are still continuing to research genetics within the Framingham Heart Study.

Primary objectives of DSM-IV study

In our selected study, DSM-IV Personality Disorders and Coronary Heart Disease (CHD), the primary objectives were to " examine the relationships between DSM-IV personality disorders and Coronary Heart Disease in a nationally representative sample of U. S. older adults" (Pietrzak, Wagner, & Petry, 2007, p. 295). This study conducted in 2007 is believed to be the first study of its kind that looks at the relationship between personality disorders and CHD as listed in the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2000). The population sample significantly narrowed because the target age of the participants was between 60 and 100 years old and the specific criteria required. The study assessed seven personality disorders; obsessive-compulsive disorder, schizophrenic, paranoid, antisocial histrionic, and avoidant individuals. The demographics included age in years, sex, race-ethnicity, education, marital status, socioeconomic, and substance abuse diagnosis. Eliminated from the study were medical conditions caused by prior or current substance abuse or chronic medical diagnosis that might trigger CHD as well as mental health issues.

The epidemiological research methods used were longitudinal and prospective. Participants were asked a battery of questions to qualify them not only in the demographic part of the study but also to make sure that they were medically and psychologically correct for each feature of the study. Conducting a national study provides a broad base of eligible participants. Many studies conducted today have a limited population sample because of the lack of participants available in the surrounding area or the lack of funds to carry out the study.

Items met before Epidemiological Research

Before epidemiological researchers can infer a cause and effect relationships in DSM-IV Personality Disorders and Coronary Heart Disease the following process must take place:

1. Researchers must identify the problem that exists.

2. Check the consistency of the events- Over the past three decades, there has been an effort to identify naval psychosocial risks factors for coronary heart disease (Kuper, Marmot, & Hemingway, 2002).

3. Accumulate all the actions- In the study the researcher included study's with dates that have been done on CHD including the National Epidemiologic survey on Alcohol as it relates to conditions.

4. Describe the events as epidemiologic factors: age, sex, race-ethnicity, education, marital status, annual income, morbid obesity, hypertension, and alcohol use. Duration of factors: lifetime or social, lifetime nicotine

dependence, lifetime drug abuse use disorders, lifetime mood disorder, anxiety disorder, personality disorders and body mass are factors to CHD.

5. Researcher will look at patterns and trends- In this study the researchers used Factors without CHD and with CHD X^2 (*df*) to gather data to define patterns, and trends.

6. Researcher formulate a hypothesis-Personality disorders associated with CHD In this study are all characterized by known factors, including risk factors in social support (Orth-Gomer, Rosengren, & Wilhelmsen, 1993).

All six conditions must be present before epidemiological researchers can justify a cause and effect relationship. Epidemiological studies cannot prove that a particular risk factor causes CHD. The data can only display the factors associated with a high frequency of CHD in the sample population exposed to the risk factors.

Contributions of the results

In our study of coronary heart disease, researchers studied depression for decades as the cause of CHD. In recent decades personality has been examined as a cause of CHD, as well. According to (Pietrzak, Wagner, & Petry, 2007) early studies demonstrated a relationship between type A behavior, characterized by competitiveness, anger, and hostility, and CHD. Hostility showed the strongest correlation while female gender showed the lowest. According to epidemiological research, CDH affected adults aged 60 or older with different conditions. Any drug, personality, or mood disorders increased the chances of CDH and female gender or social drinking

decreased the chances of CDH. Older adults with CDH were also significantly more likely to have lifetime nicotine dependence, any mood disorder, any anxiety disorder, and any personality disorder. Epidemiological research suggests that the DSM-IV personality disorder associated with an increased likelihood of CHD.

The strengths and limitations in terms of epidemiological research

According to DSM-IV Personality Disorders and Coronary Heart Disease in older adults the weakness of this analysis consists of the cross-sectional design, which impedes the assessment of the causal relationship between personality disorders and coronary heart disease (Pietrzak, Wagner, & Petry, 2007). Furthermore, there were psychometric limitations, possible partiality of cardiac disorders, and restrictions of self-reported analysis (Pietrzak, Wagner, & Petry, 2007). The self-reported analysis consisted of angina, arteriosclerosis, and myocardial infarction (Pietrzak, Wagner, & Petry, 2007). In addition, changes in personality may occur in the normal aging process, cognitive decline, and medical illness (Pietrzak, Wagner, & Petry, 2007). However, these findings may be free of character disorders and can influence the odds of having coronary heart disease (Pietrzak, Wagner, & Petry, 2007). The positive nature of this study resulted in factual data stating in the least lifetime DSM-IV personality disorder has an augmented probability of coronary heart disease in elder adults (Pietrzak, Wagner, & Petry, 2007).

Conclusion

Research method is important in psychological research. Epidemiological research methods used for the DSM-IV article include longitudinal and prospective. Six conditions must be present before epidemiological researchers can justify a cause and effect relationship in any study. CHD has numerous causes and affects an individual in many ways, but through epidemiological research a relationship between these causes and effects is either shown or disproven. Epidemiological studies cannot prove that a particular risk factor causes CHD.

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