NURS 380: Research and Evidence Based Practice

Identifying Type of Article Practice Activity

1. Find five or six abstracts using CINAHL or PubMed:
   1. Find abstracts for one or two non-research articles such as evidence-based practice guidelines, policy documents, historical articles, etc. If abstracts are structured, remove structure (headings and paragraph divisions).
   2. Find abstracts for two secondary research articles such as systematic review or meta-analysis. If abstracts are structured, remove structure (headings and paragraph divisions).
   3. Find abstracts for two primary research articles. If the abstracts are structured, remove structure (headings and paragraph divisions).

2. With abstracts, create a 1) a handout with one abstract per page, and 2) a slide deck including one plain slide per abstract and a matching slide with highlighted terms identifying the type of article each abstract represents.

3. After breaking down a research article and explaining the difference between primary and secondary research and completing the lecture/discussion portion of the class, pass around handouts with 5-6 abstracts and highlighters (UNC Libraries order yellow highlighters with contact information on them to give out to students as swag). Ask students to read each article and highlight terms that identify it as coming from a research or non-research article, and if from a research article, whether it is primary or secondary. Give students approximately one minute per abstract.

4. With the entire class, ask what type of article each abstract represents. Show students matching abstract with highlighted terms and explain the type of article it represents.
Sensor-augmented pumps, which consist of a pump and a continuous glucose monitoring system, offer considerable therapeutic opportunities, despite requiring close attention in the early phase of their use. The aim of this paper is to provide recommendations on the use of a predictive low glucose management (PLGM) system (Minimed 640G™, Medtronic, Northridge, CA, USA) in adolescents with type 1 diabetes either at the start of therapy or during follow-up. Sound clinical recommendations on PLGM are of increasing importance since several recent papers have reported significant clinical improvements in patients with PLGM, especially in adults. These recommendations are based on the experience of a group of pediatric endocrinologists who collaborated to closely and intensively study the on-boarding of adolescent patients with type 1 diabetes on automated systems to gain first-hand experience and peer-to-peer insights in a unique free-living environment. The suggestions provided here are indicative, so can be adapted to the individual realities and experiences of different diabetes centers. However, we believe that close adherence to the proposed scheme is likely to increase the chances of improving the clinical and metabolic outcomes of patients treated with this therapy.
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Adolescents with type 1 diabetes struggle with glycemic control with decline further exacerbated by transfer from pediatric to adult care. The purpose of this study was to examine which components of transition programs are effective in improving outcomes following transfer. We searched six databases for studies that assessed the efficacy of a transition program on diabetes outcomes. Studies reporting hemoglobin A1c (HbA1c) or its change for the intervention versus control group pretransition and posttransition were pooled using a random effects meta-analysis model. Of 4,689 studies identified, 18 (1 randomized control trial, 6 quasi-experimental, 1 prospective, and 10 retrospective cohort) met inclusion criteria. Findings represent data from 3,382 youth with type 1 diabetes (52% male, age 16-23 years) undergoing transition. Programs varied and included transition coordinators (n = 7), transition clinics (n = 10), and group education meetings (n = 5). Average age of transfer was 17.7 years. All but one study reported improvement/maintenance of HbA1c posttransition. However, pooling data from four studies with a control group (418 youth), there were no differences in HbA1c at 12 months (-.11 [95% confidence interval: -.31, .08]). Of other outcomes studied (clinic attendance [n = 12], severe hypoglycemia [n = 8], and diabetic ketoacidosis [n = 7]), transition programs showed greatest consistency in reducing diabetic ketoacidosis episodes. Findings suggest that transition interventions may be effective in maintaining glycemic control and reducing diabetic ketoacidosis episodes posttransition.
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Diabetes is a serious chronic disease during childhood. Because of the chronic nature of the disease, self-care is necessary. Misunderstanding by the patients regarding diabetes during the training programs render telephone follow-up after training essential. This quasi-experimental study with two groups (experimental and control) was conducted in two phases in 2014. The study population consisted of 70 children of 10-18 years of age with type I diabetes (35 patients in the experimental group and 35 in the control group). The participants were randomly selected from the patients referring to the Sedigheh Tahereh Diabetic Research and Treatment Center in Isfahan, Iran. Data were collected using a researcher-made questionnaire on self-care and a glycosylated hemoglobin recording form. The experimental group received 12 weeks of telephone follow-up training by the center, whereas the control group received no follow-up. The results showed that, after intervention, the total mean score of self-care in all aspects of diabetes care for children was significantly higher in the experimental group (p < 0.001). In addition, a statistically significant difference was observed between the experimental and control groups in terms of mean glycosylated hemoglobin after the intervention (p = 0.030). It can be concluded that telephone follow-up by a nurse can improve total self-care and glycosylated hemoglobin in patients with type I diabetes.
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Type 1 diabetes (T1D) is more prevalent in adolescents than in adults, and the self-management of insulin-dependent diabetes is complex. T1D requires injections of insulin, self-management of blood testing, regular physical activity, and diet monitoring, which are challenging for growing and developing adolescents. Adolescents are often more concerned with how they are perceived by their peers than how they perceive themselves. Evidence indicates that peer influence is crucial to the successful self-management of diabetes in adolescents. However, very few studies have investigated the effect of peer influence on adolescents with T1D. This article describes how adolescents with T1D perceive the responses of their peers to their diabetes self-management in school settings. Ten 12- to 17-year-old adolescents with diabetes were recruited from a pediatric endocrinology clinic at a university hospital in Taiwan. Audio-recorded interview data were transcribed verbatim and reviewed for accuracy. A thematic analysis approach was used to analyze the narrative content of semistructured interviews with participants. The rigor of the data collection and analysis was emphasized. Analysis of peer responses to the diabetes care practices of the participants revealed six themes: knowledge seeking, curiosity, enthusiasm, empathy, fearfulness, and isolation and bullying. Subthemes were categorized to illustrate how adolescents with T1D balance the challenge of diabetes self-care regimens and normal peer interactions.
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The objective of this study is to examine Peer Support (PS) for complex, sustained health behaviors in prevention or disease management with emphasis on diabetes prevention and management. Initial review examined 65 studies drawn from 1442 abstracts identified through PubMed. From this search, 24 reviews were also identified. Extension of the search in diabetes identified 30 studies. In initial review, 54 of all 65 studies (83.1%) reported significant impacts of PS, 40 (61.5%) reporting between-group differences and another 14 (21.5%) reporting significant within-group changes. Across 19 of 24 reviews providing quantifiable findings, a median of 64.5% of studies reviewed reported significant effects of PS. In extended review of diabetes, 26 of all 30 studies (86.7%) reported significant impacts of PS, 17 (56.7%) reporting between-group differences and another nine (30.0%) reporting significant within-group changes. Among 19 of these 30 reporting HbA1c data, average reduction was 0.76 points. Studies that did not find effects of PS included other sources of support, implementation or methodological problems, lack of acceptance of interventions, poor fit to recipient needs, and possible harm of unmoderated PS. Across diverse settings, including under-resourced countries and health care systems, PS is effective in improving complex health behaviors in disease prevention and management including in diabetes.
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