

Literature Review on PHR Use in CAM Practice

Introduction

What if communication practices in complementary and alternative medicine (CAM) could be enhanced and supported by client-provider collaboration over personal health records? Personal health records (PHRs) are records of patient collected or generated data that detail measures of their personal health. Most parents may be familiar with the yellow immunization records kept for school age children; these immunization booklets are an example of a PHR. Promoting client use of PHRs not only encourages the clients to take ownership of their own health and well being, their use may also open and reinforce lines of communication between client and provider. In a holistic, biopsychosocial approach, the clinical assessment is characterized by a philosophy which emphasizes practices that enrich patient care in the following ways: engaging with patient narrative; practitioner collaboration; and the facilitation of patient empowerment. These communication practices strengthen the patient-provider relationship, and “in conjunction with the western herbal medicine physical healthcare environment, evoke context (placebo) effects that are fundamental to the overall effectiveness of herbal treatment” (Snow, 2016, p. 55). Negotiated artifacts, like PHRs, directly support communication practices by encouraging and supporting client health information sharing and collaboration with providers. PHRs also allow the patient to regain control over their personal health information, by consolidating their health records that may be dispersed across many records systems. The significance of a study on the use of PHRs in CAM clinical practice and their effects is justified by the fact that there is little research that shows the relationship these records have on client-provider communication and treatment outcomes. The articles reviewed in the next section provide an overview of research on the use of PHRs and health information sharing behavior. The discussions in these studies give us background into theories about personal informatics and artifacts used as boundaries of negotiated health information.

Use of Personal Health Records (PHRs) in Health Information Sharing Behavior

There is only one research study on the use of PHRs in CAM and that paper discusses the effect that PHR use has on client communication with biomedical practitioners. Yeo, Park, Roh, & Levkoff (2016) analyzed over 7000 data points from the 2008 Health Information National Trends Survey

conducted by the U.S. National Cancer Institutes. They identified a subset of users who indicated that they use CAM and have used both the internet and health care services in the last 12 months (n=1457). In order to test their hypothesis that CAM users who use PHRs are more likely to share their CAM usage with conventional health providers, they included data from the survey that measured an individual's confidence in health literacy and self-efficacy, because those measures are indicators of a health promotion, CAM use, and CAM disclosure. Descriptive statistics and multivariate logistic regression analysis were performed on the data. Their results indicate that PHR usage is positively correlated with CAM usage disclosure to providers. The researchers suggest that "in order for PHRs to be an effective communication tool for patients who use CAM, more people need to adopt the use of PHRs" (Yeo et al., 2016, p. 112). Research should be conducted which examines artifact facilitated sharing between client and provider to understand how it can strengthen their relationship over time and potentially lead to better treatment outcomes.

In addition to initiating sharing, PHRs can be used to facilitate communication, mediate misconceptions, and change sharing behaviors between clients and providers. In Chung et al. (2016), researchers explored how patients and providers collaborated over the artifacts collected and generated by patients. For their research, they conducted a survey with 157 respondents who had been tracking personal data for issues with weight management and irritable bowel syndrome. Descriptive statistics and qualitative coding of the open text responses was completed on the data. The researchers discovered that data sharing was equally likely to be initiated by provider or patient. From interview data, researchers found that patients had high expectations for providers reviewing their personal data. Patients wanted the data sharing activity to guide discussion during visits, help provide personalized treatment plans, and to walk away with actionable insights. They also wanted help from providers interpreting, seeing patterns in, and making sense of the data. Patients felt the sharing activity supported their affective needs by promoting accountability, increasing motivation, validating their experience, and for personal recognition; the very type of needs the biopsychosocial approach seeks to support.

In order to explain how the collaboration transpired, Chung et al. gave details about four specific participants and the artifacts they kept. One participant integrated step and weight data into a chart to provide "a complete picture of everyday life" (Chung, 2016, p. 6). Another participant shared diet, medication, and symptom data with three providers as evidence that treatment wasn't working.

Interestingly, the providers left notes about the data for each other to review. Participant three was directed to use a data collection app by the provider, who spent some time with the patient teaching her how to get the most use out of the tool. Participant four found using paper tools to collect data too cumbersome, so switched to an app, but was disappointed when the provider did not look at the data directly and subsequently stopped logging data. Over time, these “patient-generated data were transformed into different physical or conceptual forms to support collaboration” (Chung, 2016, p. 8), and can be seen as boundary negotiating artifacts, which facilitate information transmission and collaboration (Lee, 2007). Boundary negotiating artifacts are created when client and provider work together, in situations that are not routine or simple, such as a health clinic (Lee, 2007). There are five types of boundary negotiating artifacts: self-explanation, inclusion, compilation, structuring, and borrowed. A PHR can be one or more of these types depending on the personal health information included, as negotiated between patient and provider. This negotiation over artifacts may foster communication and collaboration. Providers working in the field of CAM should take an interest in client PHRs, to provide guidance on what and how to record data and to study their overall effect on treatment outcomes.

Conclusion

There are many research opportunities which exist in the area of PHR use in CAM to answer the outstanding research questions raised in the previous sections. We propose a research study to fill this gap in knowledge to answer the following question: Does the use of PHRs encourage and support biopsychosocial communication practices between client and CAM providers? And ultimately, what is their impact on treatment outcomes? A qualitative study to collect data on the effects of PHR use on health information sharing in CAM clinical settings and a quantitative study to measure the effect of PHR usage on treatment outcomes would be the recommended first steps. PHRs have the potential to very effectively improve communication and therefore treatment outcomes in clinical practice and should be investigated by the complimentary and alternative medicine community.

References

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