

Conference Paper

CRITICAL APPRAISAL TOPIC ON PATIENT EDUCATION ON ADVANCE DIRECTIVES IN END-OF-LIFE CARE

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Abstract

For the past 20 years, physicians, ethicists and lawyers have advised patients with terminal conditions to document their wishes in advance, using advance directives (ADs). Completion rates for ADs increased when information was given to participants in advance of their admission. However, despite efforts to educate patients about ADs, completion rates of ADs were still low. Reviewing the current evidence on effectiveness of patient education on ADs in increasing ADs completion rates in patient in end-of-life care. Literature search of studies evaluated various ways of patient education on ADs by searching CINAHL, MEDLINE, Scopus and PubMed using key words 'patient education', 'health education', 'advance directives' or 'living will' or 'durable power of attorney' or 'proxy' and 'increased completion rates and cancer or end-of-life care'. Literature search was limited to articles in English. The different ways of patient education showed different level of effectiveness in increasing ADs completion. Further studies are warranted in examining the many kinds of patient education in different settings to screen for and determine the most effective one.

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1. INTRODUCTION

Advance directives (ADs) were formal statement made by a person about how he wants medical decisions for himself made and who should make these decisions when he can no longer make such decisions for himself [8]. There are two kinds of ADs: living will (LW) which is a treatment directive, and appointment directive that is durable power of attorney for health care (DPHAC) [3].

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2. METHODS

Literature search identified six studies; one was randomised controlled trial (RCT) that compared effectiveness of two means (mailing of written material and video) for increasing the use of advance medical directives; one was longitudinal study that developed a participatory educational program implemented in faith communities that would increase discussion and signing of living will (LW) and durable power of attorney (DPAHC), two cohort studies; the prospective one evaluated the effect of an advance care planning intervention on the completion of ADs and patient satisfaction while the retrospective one compared three education strategies (participation in a group session; one or more individual sessions with a social worker; and no AD education) in attempt to evaluate their effectiveness on AD completion, one was systematic review on studies designed to increase AD completion in the primary care setting and employed meta-analytic technique to quantify their effects, one descriptive method that designed, implemented and evaluated an interactive multimedia CD-ROM programme on AD. These studies have all demonstrated a particular intervention to increase ADs completion rates, yet only one used RCT thus the level of evidence has been limited to non-randomized trials.

3. RESULTS

In Brown et al.'s study, written materials were mailed to one group and to the intervention group, written materials were sent with an Advance Directives video. The size of the population used and the randomized design were the greatest strength of this study. Eighty percent power calculation and 95% confidence interval for $p=0.952$ indicated that the result of this study— mailing of written materials substantially increased placement of an advance directives but the addition of a videotape did not— was precise. However, the authors assumed that videotapes have limited impact in an older population that was not video-oriented thus videotape exposure did not increase advance directive completion. In addition, the lack of baseline questionnaire responses from which to measure change and the lack of completed questionnaires from 41% of subjects as well as the fact that the setting was only in one place (Kaiser Permanente Colorado Region) warranted further studies to be conducted in different settings before this result could be implemented in a wider community.

The intervention used in a pilot study by Murphy, et al. (2000) was the use of multimedia interactive CD ROM education program on 31 elderly participants, resulting in significant increase in the participants' knowledge, attitudes and behaviour but not

necessarily in ADs completion rates. Small sample size, voluntary participation and lack of randomized experimental group design were identified as limitations of the study. In addition, participants' misperceptions and misinformation were reported. These were indicated by the participants' answer to incorrect statement in post test. Further, investigation is warranted to determine if the CD-ROM program containing dramatic video of related life-saving treatment and value preference considerations as these would have influence the participants' level of uncertainty. Patient satisfaction was measured using Likert scale of 0 to 10. An observer staff rated they subjects' use of the computer program therefore the possibility of self-selection bias should be considered. However, the use of this technology shows great promise and is potential for use in clinics even acute-care settings.

The use of a particular tool in educating people on ADS was consistent with a systematic review by Ramsaroop et al. (2007). The study population was mostly female. The types of intervention include patient-directed interventions, combined interventions, and physician-directed intervention therefore the question being asked was clearly focused. The review question was what we needed for success in completing an AD in primary care setting. The study design was extensive bibliographic searches of English language literature published from January 1991 to July 2005. There was follow up from reference list but no personal contact made with the experts and it did not search for non-English studies.

A scoring system was used to determine which study was included and there were three investigators. Of the 18 studies retained, the result of each study was clearly displayed and there was heterogeneity. The results were expressed in effect size (0.50) with 95% confidence interval=0.17-0.83, indicating a moderate overall effect in favour of the intervention. The results showed that the most common approach consisted of delivery of educational materials for patients (through mailing or at visit) in conjunction with patient-healthcare provider interaction in a group or individual setting and this might be applicable to wider community because the study samples varied substantially with regard to ethnicity and settings (primary care clinics, geriatric clinics, internal medicine residency clinics, and primary care offices).

Another intervention used to increase the ADs rates was advanced care planning (ACP). The study by Ho et al., (2000) addressed a clearly focused issue. While there were no risk factors studied, it was clear that the study tried to detect a beneficial effect that was ACP's effect on the completion of ADs and patient satisfaction. The question being asked was the goal of ACP thus a cohort study a good way of answering the

question. The cohort was representative of a defined population that was predominantly young people (mean age = 39.2) with HIV/AIDS who were interested in ACP. Two hundred and ten participants enrolled in the study and completed Interview 1 (106 participants from the hospital-based HIV clinic and 104 from the HIV/AIDS service organization). Exclusion criteria included age less than 16 years old, not fluent in English, inability to read, inability of completing an AD. It was obvious from the details provided that everybody who should have been included was included. The authors used Bonferroni Correction for adjusting the level of statistical significance for multiple comparisons and divided the accepted level of significance (0.05) by the number of comparisons (22) to yield a revised level of significance (0.002) for comparisons of the mean raw scores of each item being analysed). The AD completion rates were measured by self-report over approximately six months while the effect on patient satisfaction was measured by AD-PSQ. However, there was no information about its validity.

All the subjects classified into exposure groups were treated using the same procedure and the rates of AD completion before and after the ACP intervention were compared with McNemar's test. The bottom line results indicated that the advanced care planning (ACP) intervention in an outpatient setting, consisting of three face-to-face interviews, educational materials including video, AD documents and counselling increased the AD completion rate from 16 to 41% ($p = 0.0001$). Self-report of AD completion by people with HIV/AIDS may be misleading, as examination of 'completed' ADs revealed that 23.1% were legally invalid. There was no report on RR and absolute risk reduction (ARR) or size of confidence interval. The cohort design of this study was subject to bias by confounding factors and secular trends. In addition, this study focused on volunteers with HIV/AIDS and hence may not be generalizable to other patient groups.

A longitudinal study by Medvene et al (2003) also used educational program implemented in faith communities in attempt to increase discussions and signing of two types of ADs (LW and DPAHC). Two hundred forty-eight (248) 69% of the congregants who started the program completed it; 36% of the 248 program completers revised an existing directive or signed one for the first time. The fact that the study used a nonrandomized, noncontrolled design made it impossible to assess the directionality and causality of the changes in participants' signing behaviour. Future research using a stages of change model with experimental design will be needed to identify effective educational materials.

4. CONCLUSION

Completion rates for ADs increased when information was given to participants in advance of their admission [3]. This literature review has tried to demonstrate different kinds of patient education in increasing ADs completion rates. Different kinds of patient education had different level of effectiveness in increasing ADs completion. Factors such as population, settings of the study, method/design being used effect the result of the study. It was suggested that further studies should be conducted in effort to examine the many kinds of patient education delivered in different settings all over the world in order to be able to screen and determine the most effective one.

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