Can Education and/or Experiential Influence Perceptions/Referrals by Primary Care Clinicians to a Complementary Integrative Health Clinic?  
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Background

Primary care providers (PCP) are important referral sources for care, but may not have enough knowledge/experience to make referrals to complementary integrative health (CIH) clinics.

A recently published study using data from the 2012 Physician Induction Interview of the National Ambulatory Medical Care Survey found that 53% of general office-based clinicians in the U.S. recommended at least one CIH therapy to their patients (Stussman et al., 2020).

Referral rates to CIH therapies tend to be higher for patients with chronic pain than other conditions (Griffin et al., 2016; Bodner et al., 2018). Clinicians’ knowledge of and experience with CIH therapies is a factor in predicting the clinicians’ rates of referral for CIH therapies (Gray & Orrock, 2014).

In this pilot study, we sought to test whether a single CIH education session as well as an experience with acupuncture, massage, or both could influence PCP perceptions or attitudes of CIH and/or their actual referrals to our CIH clinics.

Methods

The study participants included eligible University Hospitals (UH) PCPs - who spent 20 or more hours per week providing direct patient care. All clinicians gave written informed consent and the protocol was approved by the University Hospitals Institutional Review Board.

Attitudinal Surveys

Participants completed a 26-item baseline survey: demographics, approach to chronic pain treatment, attitudes/beliefs about CIH therapies, and self-reported patterns and practices for referring patients to CIH therapies.

A 12-item attitudinal survey was administered after a three-month post-intervention period. Two additional surveys assessed the educational training component of the intervention and participants’ satisfaction with CIH treatments.

Referral Counts

Counts of each participant’s patient referrals to the University Hospitals’ CIH Department (Connor Integrative Health Network) were extracted from the healthcare system’s electronic health record system and compared for a period of 3 months before the intervention vs during & 3 months after the intervention.

Intervention

The intervention consisted of webinar-based training with massage and acupuncture medical evidence, and each choice of acupuncture, massage, or both types of treatment. One visit was available for each type of treatment, which consisted of standard care provided at no cost to participants. The live webinars were led by a physician with expertise in CIH therapies.

Statistical Analysis

To test if attitudes toward CIH therapies changed pre vs post, t-tests for two dependent samples were computed. Changes in CIH referral rates pre/post, were tested by means of a z-test for correlated proportions.

A total of 28 individuals (20 females) consented and enrolled in the study. Participants completed residency training an average of 13 years prior to the study. Forty-six percent of participants reported receiving brief training in CIH therapies since completing medical school. Prior experience with therapies, 92.9% reported having experienced a professional massage and 39.3% had experienced acupuncture.

Pre-Intervention

Massage and acupuncture were perceived as useful sometimes or often in the treatment of chronic pain by 96.4% and 89.3% of participants, respectively.

Post-Intervention

Ninety-two percent of participants’ agreed or strongly agreed that the intervention increased their interest in talking with patients about massage and acupuncture.

Intervention experience

Acupuncture alone was experienced by 4% of participants, massage alone by 40%, and both massage and acupuncture by 56%.

With respect to satisfaction with the therapies, 76.4% agreed or strongly agreed that they were satisfied with their acupuncture experience, and 95% agreed or strongly agreed that they were satisfied with massage.

Results

Conclusions

Our study found that a single CIH education session and CIH experiential significantly increased PCP perceptions of CIH. We also found that a large increase in the number of PCPs who provided referred patients to our CIH clinic after the intervention. While these results are promising, a future randomized trial with an appropriate comparison group is warranted.

Results continued

Post-Intervention

All participants agreed or strongly agreed that they were more likely to refer chronic pain patients for acupuncture and 88.9% indicated the same for massage.

As shown in the Table, a significantly greater number of participants reported that acupuncture and massage were each useful in the treatment of chronic pain following the intervention than before it.

When assessing the EHR, we found that 20% of study PCPs referred to our CIH clinics in the 3 months before the intervention and 44% referred to our CIH clinics during or in the 3 months after the intervention (p<0.02).

Table. N=23

In your opinion, how often is (treatment type) useful in the treatment of chronic pain?  [pre vs. post]

<table>
<thead>
<tr>
<th>Treatment Type</th>
<th>Mean Difference</th>
<th>Std. Dev.</th>
<th>Std. Error Mean</th>
<th>95% CI</th>
<th>Sig. (2 tailed)</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acupuncture</td>
<td>0.391</td>
<td>0.783</td>
<td>0.163</td>
<td>(0.730-0.053)</td>
<td>0.025*</td>
<td>0.499</td>
</tr>
<tr>
<td>Massage</td>
<td>0.348</td>
<td>0.573</td>
<td>0.119</td>
<td>(0.536-0.100)</td>
<td>0.008**</td>
<td>0.607</td>
</tr>
</tbody>
</table>

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