

Integrative Medicine

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the latest developments in integrative therapies [ALERT]

ADHD

ABSTRACT & COMMENTARY

The Few-Foods Diet and ADHD

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Dr. Feldman reports no financial relationships relevant to this field of study.

SYNOPSIS: This Dutch study describes a six-month follow-up of children with attention deficit hyperactivity disorder (ADHD) introduced to the Few-Foods Diet. Results indicate a significant decrease in ADHD symptoms and medication in children compliant with the diet.

SOURCE: Pelsser L, Frankena K, Toorman J, Pereira RR. Retrospective outcome monitoring of ADHD and nutrition (ROMAN): The effectiveness of the Few-Foods Diet in general practice. *Front Psychiatry* 2020;11:96.

A 4-year-old kicked out of preschool; a 10-year-old lagging behind peers academically and socially; a quiet 15-year-old struggling to keep organized in high school. At first glance, there appears little in common among this group. However, a closer look reveals that the primary symptoms of dysfunction in each case may stem from unrecognized or untreated attention deficit hyperactivity disorder (ADHD).

Presenting with persistent inattentiveness and/or hyperactivity and impulsivity severe enough to interfere with functioning, and occurring in more than one setting, ADHD is one of the most common neurodevelopmental disorders of childhood, with a worldwide prevalence

estimated between 5% to 7%.¹ In the United States, these numbers trend higher. Data from a 2016 national parent survey reveals 9.4% of children between the ages of 2 and 17 years have been diagnosed with ADHD.² Without a clear etiological basis, addressing symptoms remains the primary focus of ADHD treatment. Psychostimulants, with established but limited efficacy and duration of action, are the medication category of choice. However, concerns about use of these controlled substances in young children and teens have spurred development of alternative treatments.^{3,4}

The Few-Foods Diet (FFD), an elimination diet, has shown promise in identifying a food-induced subtype

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Summary Points

- This retrospective study evaluates the effectiveness of the Few-foods diet (FFD) — a restrictive, elimination diet, followed by food re-introduction, for treatment of attention deficit hyperactivity disorder (ADHD) in three general practice settings.
- Fifty-seven children diagnosed with ADHD started the FFD; 34 of 52 children remaining on the diet at the end of week 5 were “ADHD responders” and showed significant improvement in measurements of ADHD.
- For at least five weeks, 21 of 27 children successfully ceased medication for ADHD.
- At six months, 14 of the 34 ADHD responders remained on the diet.

of children with ADHD. This meal plan, also referred to as an oligoantigenic diet or restricted elimination diet, restricts foods to items with low allergic potential (e.g., rice, quinoa, turkey, some vegetables, etc.).⁵

In the Netherlands, since 2001, some ADHD diagnostic centers have used this diet as a tool to identify whether foods trigger ADHD symptoms. If symptoms remit after adopting the diet for five weeks, one food/week is re-introduced. Children are monitored carefully for reemergence of symptoms with a goal of eliminating the identified culprit, eventually creating an individualized diet.

Pelsser et al conducted a retrospective, multicenter effectiveness study, analyzing data from children who started the FFD in three different healthcare centers in the Netherlands from November 2012 through February 2013. Noting that in real life, ADHD often is comorbid with other psychiatric conditions, symptoms of oppositional defiant disorder (ODD) were included in the analysis. ODD is a behavioral disorder presenting with a developmentally inappropriate pattern of negativity towards authority figures.⁶

In this study, 57 children with significant behavioral problems began the FFD. At the start, 70% of these children had a diagnosis of ADHD, and 51% met criteria for ODD. Notably, behavioral problems were reported as severe despite 47% of the children taking psychoactive medication and 26% of them following an elimination diet. Parent and teacher rating scales were compared at the beginning of the study and at the end of a five-week FFD.

Depending on participants' responses to the diet, medication reduction or discontinuation was periodically discussed. Of the 57

children, 14 began the study younger than 8 years of age. The centers reported mean ages from 8.6 to 10 years.⁶

The FFD requires commitment from the child and familial support. To this end, several weeks prior to beginning the diet, the child and family undergo assessment regarding not only the child's behavior, but also baseline food habits, activities, and family support mechanisms. At the end of this period, parents receive feedback regarding the potential barriers in adopting this stringent diet. If all agree, the child begins a slightly modified FFD for weeks 1 and 2, with further restriction over weeks 3 through 5.

Food reintroduction may gradually begin at the end of week 5 for those recording at least a 40% symptom reduction. A gradual process, proceeding with a child's favorite foods first and retreating if behaviors emerge, continue for some children for more than a year. For the most part, children who demonstrated less than a 40% reduction in symptoms based on parent and teacher rating scales did not continue on the diet. In this Pelsser et al study, parents and teachers used rating scales, such as the Abbreviated Connors Scale (ACS) to rate ADHD symptoms; ODD was evaluated with a structured interview based on DSM4 criteria.⁷

The results were:

- of the initial 57 children, five dropped out because of difficulties following the diet;
- thirty-four children showed a > 40% reduction in ADHD symptoms, thus qualifying as “ADHD responders;”
- twenty children showed a > 40% reduction in ODD symptoms, qualifying as “ODD responders,” and 80% of those were ADHD responders as well;

- of the 27 children taking medication at the start, 13 were among the responders, and 12 of those stopped medication during the study because of symptom remission;
- of the original 15 children following an elimination diet at the start, 10 were among the responders.

Among the ADHD and ODD responders, symptoms significantly decreased. The decrease in rating scale criteria for the ADHD responders averaged about 72%, from 12.3 at the study's start to 3.5 by the end of week five ($P < 0.0001$). Among the ODD responders, the ODD DSM4 criteria decreased 79%, from an average of 5.2 to 1.1 ($P < 0.0001$). Families of ADHD responders could continue the FFD into the reintroduction phase after week 5, and 26 families chose to do so. At six months, 14 families remained as diet participants. Because family cooperation and involvement is key to maintaining this diet intervention, participants self-rated family structure as "average" or "good." "Average" ratings implied difficulty with consistent parenting while "good" suggested consistent limit setting and parenting techniques. Of the 14 families remaining at month 6, all reported the family structure as "good," while the nine families in a responder group reporting the family as "average" either did not start or complete the reintroduction phase.

■ COMMENTARY

In this work Pelsser et al show that the FFD is associated with an improvement in parent and teacher assessment of ADHD symptoms, and with a significant decrease in independently measured ODD symptoms. Notably, improvement was measured in children taking medication at baseline, allowing for medicine discontinuation. Children on an elimination diet at baseline also showed improvement, leading to a hypothesis that the FFD may have a more robust impact than generic elimination diets.

The real-world conditions are a clear strength of this study. Data was obtained retrospectively from children at three treatment centers whose families had enrolled them in the FFD protocol. One of the more striking elements of this approach is the time devoted to preparing children and families for the diet, and the need for families to support a rigid eating pattern.

Given that the children entered the study with significant behavior problems, it is likely that neither of these were trivial tasks. It may be that part of the improvement was a reflection of increased interaction between parent and child as a result of demands of the intervention. It is unclear what conclusions to draw from the self-rating of family structure, but the finding that 100% of the families continuing the diet at the six-month mark self-rated as "good" in terms of parenting consistency gives a clue to the central role of family in this intervention. Pelsser et al speculate that maintaining the FFD may require a

high level of family cohesiveness and structure; the team suggests that coaching may be helpful for families implementing such a plan.

In the Netherlands, the FFD is accepted as a diagnostic tool to identify ADHD responders to diet changes. This study implies that dietary modification, and specifically the FFD, with subsequent reintroduction of food on a trial basis, has potential as a treatment for this subgroup of children. More information about the re-introduction of specific foods, and more research into this process, will be helpful in generalizing the results to clinical practice. In the United States, it is not customary to use the FFD to identify ADHD or ODD responders to food interventions. It is, however, quite common for parents of children on ADHD medication or children diagnosed with ODD to ask about diet interventions or alternatives to medication. Parents express numerous concerns about using pharmacologic agents for these disorders, including questions about the long-term effect of chronic medication use in children, implications of using controlled substances in youth, cost factors, and efficacy limitations.^{3,8}

It is a stretch to assume that the United States' health system, as currently designed, will allow broad-based implementation of an approach similar to that described in this study. However, it is quite likely that parents will continue to seek information regarding diet intervention for children with ADHD and comorbid disorders. Research in this field and searches for the etiologic underpinnings of the FFD should provide more answers.

The integrative provider can use information from this study to assure parents and children that food may certainly play a role in at least a subtype of behavioral and attentional disorders. Paying attention to diet and attempting to identify foods exacerbating behavioral problems is a reasonable first step. Partnership with a nutritionist may be useful to reduce risks involved in elimination diets in general, including nutritional deficiencies and parent-child conflict.⁹ Understanding that individualization of treatment is optimal and reaching for a comprehensive, multimodal approach is the goal in providing guidance to children with ADHD and ODD and their families. ■

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CANCER

ABSTRACT & COMMENTARY

Vitamin D and Colon Cancer

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Dr. Kagoda reports no financial relationships relevant to this field of study.

SYNOPSIS: A self-report of any vitamin D supplementation is associated with a decrease in colorectal polyps; adjusted odds ratio (aOR) 0.57 (95% confidence interval [CI], 0.33-0.96) in high-latitude conditions. A self-report of meeting 600 IU of vitamin D, the recommended daily intake for that region, is associated with a decrease in high-risk adenomatous polyps, with an aOR of 0.78 (95% CI, 0.62-0.99) in high-latitude conditions.

SOURCE: Sutherland RL, Ormsbee J, Pader J, et al. Vitamin D supplementation reduces the occurrence of colorectal polyps in high-latitude locations. *Preventive Medicine* 2020;135:106072.

We obtain vitamin D from our diet, or our skins make it when exposed to ultraviolet B radiation. Vitamin D₃ is metabolized in the skin from 7-dehydrocholesterol. The liver metabolizes vitamin D to 25OHD, which is then metabolized to 1,25(OH)₂D in the kidneys. The function of vitamin D in bone health and immune system functioning is accepted and widely studied, and more recently, vitamin D supplementation has been investigated for its role in preventing colon cancer. This study helps provide further information on the role of vitamin D supplementation and the presence of colorectal polyps in populations living in high-latitude locations.

This cross-sectional study uses data collected from the largest publicly funded center for early detection and screening of colon cancer in Canada: Forzani & MacPhail Colon Cancer Screening Center (CCSC). Data collection included a colonoscopy report with a histological type of any identified polyps and questionnaires completed prior to the colonoscopy.

Three questionnaires were used: a Canadian Diet History Questionnaire (I or II, depending on when the intake was completed), a Health and Lifestyle Questionnaire, and an International Physical Activity Questionnaire. The Canadian Diet History Questionnaire (DHQ) was used to determine fiber intake, vitamin D dietary intake, and supplement use. The DHQ was developed by the National Cancer Institute Risk Factor Assessment branch and also is used in the United States; the Canadian version includes foods that are specific to Canada.¹

Summary Point

- In high-latitude locations, self-reported vitamin D supplement intake is associated with lower incidence of colorectal polyps.

The primary outcomes of this study included vitamin D supplementation, total vitamin D intake, and their association with any type of colorectal polyps. Participants were recruited from the CCSC. Table 1 shows the study's inclusion and exclusion criteria. Characteristics of the populations sampled included age, sex, ethnicity, education, marital status, alcohol use, smoking status, physical activity, family history of cancer, nonsteroidal anti-inflammatory drug use, vitamin D supplementation, and fiber intake. Table 2 shows a breakdown of population characteristics for the study.

The data analysis used logistic regression models. Crude and adjusted odds ratios were used to evaluate the association between vitamin D supplementation and high-risk adenomatous polyps. Likelihood ratio tests were used to evaluate effect modifiers, and chi-square tests were used to evaluate whether the characteristics were associated with vitamin D use. Results showed that, for those who reported taking any vitamin D supplementation, the risk for polyps was lower than that of those who reported not taking any vitamin D supplement; $OR_{\text{crude}} = 0.59$ (0.46-0.76). The risk for polyps dropped further for those who

reported taking at least the recommended daily intake (RDI) of vitamin D; $OR_{crude} = 0.75 (0.65-0.87)$. These results were adjusted for age, sex, body mass index, smoking status, alcohol use and fiber intake, as these variables were identified as confounders. Interestingly, there was no significance for meeting vitamin D RDI and high-risk adenomatous polyp (HRAP) detection; $OR_{crude} = 0.8 (0.5-1.2)$.

■ COMMENTARY

This study showed that self-reported vitamin D supplementation was associated with a decrease in the occurrence of any colorectal polyps and, specifically, HRAPs. The main strength of this study was that it avoided outcome bias, since the questionnaire was completed prior to the colonoscopy and the colonoscopy results.

Another advantage of this study is that it used HRAPs as a primary outcome. HRAPs are considered to be more informative for determining risk for colorectal cancer during screening. Unfortunately, the study was too underpowered to pick up significance for risk reduction regarding vitamin D for HRAPs. This study did not show

a significance for meeting vitamin D RDI and HRAPs; $OR_{crude} = 0.8 (0.5-1.2)$.

Serum vitamin D concentration would have clarified the association between serum vitamin D level and HRAPs. Per email communication with the lead author, at the time, they were not collecting blood samples for any biorepository participants and were unable to measure serum vitamin D levels. They have since begun collecting various biological samples. This also was not a racially diverse study.

Prior studies suggest a different mechanism and role for vitamin D in prevention of an *initial* polyp vs. prevention of *recurrent* polyps. A study by Crockett et al on vitamin D supplementation and *recurrent* polyps found no effect of either calcium or vitamin D on polyps (sessile serrated adenomas polyps in particular) during the treatment phase, when participants were receiving 1,200 mg/day of calcium and 1,000 IU/day of vitamin D2. However, six to 10 years after supplementation with calcium and vitamin D, there was an increased risk of sessile serrated adenomas polyps; relative risk 3.82 (1.26-11.57).²

Crockett et al also discuss findings from a chemoprevention trial, which found that “smokers were at higher risk of recurrent conventional adenomas when given a combination of aspirin, calcium and calcitriol. These results suggest that smokers may be particularly sensitive to calcium mediated effects that promote colorectal neoplasia.”

Further studies are needed to understand the effect of vitamin D supplementation for prevention of a primary polyp vs. recurrent polyps. This may bring to mind the epidemiological studies concerning beta carotene supplementation effects and tobacco smoke in lung cancer — the alpha-Tocopherol Beta Carotene Cancer Prevention Study and the Carotene and Retinol Efficacy Trial.^{3,4} Vitamin supplementation may not always have the desired effect.

Another interesting consideration the authors discussed is that the effect of vitamin D supplementation may be influenced by the vitamin D receptor genotype. The authors cite a study by Barry et al that suggests the effect of vitamin D3 supplementation on advanced colorectal cancer risk may be the result of differences in the vitamin D receptor gene.⁵ Since genotype frequencies vary by race, the effect of vitamin D supplementation also may vary in different populations.

In summary, this study suggests that vitamin D supplementation may be beneficial in primary prevention of any colorectal polyps in the population described. However, given that prior studies examining secondary prevention of colorectal polyps have contradictory results, further

Inclusion Criteria	Exclusion Criteria
Age 50 to 74 years	Age < 50 or > 74 years
Average colon cancer risk	Greater than average colon cancer risk
No colorectal symptoms	Significant colorectal symptoms
No colonoscopy or sigmoidoscopy in the prior 10 years	Colonoscopy or sigmoidoscopy in prior 10 years
Can receive a non-hospital-based endoscopy	Unable to receive a non-hospital-based endoscopy

Characteristic	Category	Number
Age	50-59 years	678
	60+ years	731
Sex	Female	639
	Male	770
Ethnicity	Non-white	171
	White	1,238
Reported vitamin D	Yes	315
	No	1,094
Reported vitamin D recommended daily intake	Yes	765
	No	644
High-risk adenomatous polyp detected	Yes	76
	No	1,333

studies, specifically those that include measurement of serum vitamin D levels, need to be done prior to recommending vitamin D as a means of primary prevention of colorectal polyps. ■

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LABOR

SHORT REPORT

Labor, Pain Management, and Acupuncture: A Cochrane Review

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Dr. Feldman reports no financial relationships relevant to this field of study.

SYNOPSIS: This Cochrane review evaluating acupuncture and acupressure for pain management during labor finds acupuncture may lead to reduced use of pharmacological agents for pain control while acupressure may reduce pain intensity. Higher-quality studies are needed.

SOURCE: Smith CA, Collins CT, Crowther CA, Levett KM. Acupuncture or acupressure for pain management during labour. *Cochrane Database Syst Rev* 2020;2:CD009232.

Cochrane, an international, nonprofit organization dedicated to providing unbiased reviews of medical research in healthcare, serves patients, providers, researchers and “anyone interested in using high-quality information to make health care decisions.” The well-stocked Cochrane Library online database holds reviews of more than 8,000 medical interventions, more than 2,000 protocols, and more than 160,000 medical trials.¹

Smith et al contribute to this knowledge base with a fresh look at the role of acupuncture and acupressure in pain management during labor. This work updates the 2011 Cochrane review. Conclusions in 2011 were that while both acupuncture and acupressure had suggestive evidence of a role in managing pain during labor, including mitigating pain intensity, increasing satisfaction of pain management, and reducing pharmacological interventions, significant bias and poor-quality evidence did not allow firm recommendations.²

For this 2020 review, 28 studies (including 11 from the 2011 review) incorporating data from 3,960 women are covered. In addition, a newer method of determining quality of the acupuncture or acupressure intervention is employed (the National Institute for Complementary Medicine Acupuncture Network scale). This metric permits a more nuanced view of the quality of the studies

and a standardized approach to evaluation by reviewers.³ Evidence from the studies is weighed using the Grading of Recommendations, Assessment, Development and Evaluations approach — providing a reliable algorithm to determine the strength of evidence and compare among studies.⁴

Pain during labor has multifactorial origins, with physiological, psychological, and even cultural components and influences. Most studies in the field agree that individualization of pain management is important.⁵ Smith et al explain that consideration of both pain control efficacy and effectiveness is a major factor in evaluating responses. For example, efficacy trials usually compare acupuncture or acupressure to a sham treatment, while effectiveness trials typically compare the intervention(s) to standard treatment. Thus, although efficacy trials may measure pain scores (usually on a visual analog scale [VAS], typically from 1 to 10), effectiveness trials look at reduction in pain medication and/or satisfaction scores among participants.

Acupuncture and acupressure, both originating in Asia and based on energy theories of yin and yang, differ in significant ways. Acupuncture is a major component of traditional Chinese medicine and involves needle insertion into specific body areas to correct energy imbalances.

Summary Points

- This updated Cochrane Review of acupuncture and acupressure in pain management during labor includes results from 28 trials involving 3,960 women, representing an increase of 17 studies from the 2011 review.
- Outcomes include pain intensity, satisfaction with pain relief, quantity of pharmacological agents used, reduced assisted vaginal birth, reduced cesarean sections, and Appearance, Pulse, Grimace, Activity, and Respiration scores < 7 at five minutes.
- Positive findings for acupuncture vs. sham control include moderate-certainty evidence of increased satisfaction of pain management and decreased use of pharmaceutical agents.
- Positive findings for acupressure vs. sham control include moderate-certainty evidence of reduced rate of cesarean delivery, and, compared to combined control (placebo and no treatment), moderate-certainty evidence of pain intensity reduction.

In addition, there is a modified, or westernized, approach to acupuncture based on neurophysiological factors.⁶ Acupressure uses manual pressure (hands and fingers) rather than needles to activate specific points and restore balance.⁷ Both are complex techniques, involving not only physical touch, but also a therapeutic relationship.^{6,7}

In the Smith et al study, acupuncture is compared to sham control, usual care, no treatment, and water injection. Acupressure is compared to sham control, usual care, and combined control (placebo and usual care). Table 1 (available at <https://bit.ly/2XX9gdd>) provides result details. Results indicate moderate-certainty evidence that acupuncture, compared to a sham control or water injection, increases satisfaction with pain management and reduces use of pharmacologic agents during labor. Additionally, there is moderate-certainty evidence that acupressure may reduce the need for cesarean sections when compared to a sham control. There is also moderate-certainty evidence that acupressure, compared to a placebo and usual care, reduces pain intensity of labor, although there are few trials measuring this (two trials; 322 women).

To keep childbirth and childbearing as natural as possible, many women express an interest in complementary and alternative medicine (CAM) during pregnancy.⁸ The Smith et al review of evidence supporting the efficacy and effectiveness of acupuncture and acupressure during labor brings valuable information for patients and providers who are looking for CAM interventions.

Perhaps the biggest limitation to clinical application of the review is the limited number of studies in the general area of acupuncture and acupressure in labor and in each of the subcategories. Larger numbers of studies strengthen the power of a meta-analysis to detect significant differences between interventions. In addition, Smith et al point to a significant degree of bias in most of the studies, especially where participants and providers are not blinded to the intervention. All of the studies included

women in low-risk pregnancies, usually at term and when presenting in labor. The researchers note that the style of acupuncture varied among the studies (including eight trials with individualized treatment), as did the duration, depth of insertion, and other components of both acupuncture and acupressure. Additionally, there is no discussion of any negative effects from these interventions — it is possible this is in part because of the self-selected nature of the participants. These factors weaken the ability to generalize and apply findings in clinical practice.

However, based on a limited number of studies, it does appear that, compared to sham treatment, acupuncture may both increase satisfaction with pain management during labor and decrease the use of pharmacologic agents. Acupressure may reduce pain intensity compared to a combined control and compared to a sham control, may reduce the rate of cesarean delivery. Future studies, including a focus on duration and timing of intervention, any contraindications, and the ability to generalize to all patients, as well as methodology to reduce bias, are needed before global acceptance and clinical application.

When working with pregnant women who have questions about these interventions during labor, a provider is on firm ground noting the importance of individualization of pain management during labor, and that studies are not yet conclusive regarding benefits of acupuncture or acupressure during labor. Skilled providers of these techniques are not readily available in all communities, the cost is variable, insurance reimbursement uncertain, and in this era of COVID-19, additional practitioners are restricted from many birthing rooms.

Thus, although it is unlikely that acupuncture and/or acupressure will be a standard of care in United States labor and delivery rooms in the near future, time and further studies will let us know if these will one day play a more central role in births. ■

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CME QUESTIONS

1. Which is true about the Few-Foods Diet (FFD)?
 - a. This easily managed, broad-based, flexible diet is used in the Netherlands to identify a subgroup of children with attention deficit hyperactivity disorder (ADHD) whose symptoms remit after adopting the diet.
 - b. The study regarding the FFD looked at this restrictive elimination diet to identify and then treat children with ADHD for up to six months; results indicate improvement in symptoms within a group of "ADHD responders."
 - c. The FFD is a restrictive, elimination diet; results of this study indicate that although it may be useful to identify children with ADHD likely to respond to diet changes, the FFD is impractical to maintain for more than a few days.
 - d. Families in the study self-rated the family level of parenting and consistency; results did not show a correlation between family self-rating and symptom remission on the FFD.
2. Based on the study by Sutherland et al, which of the following statements is true?
 - a. A randomized clinical trial concluded that the benefits from vitamin D3 or vitamin D2 supplementation for the prevention of recurrent colorectal adenomas are independent of the vitamin D receptor genotype and phenotype.
 - b. Self-reported vitamin D supplementation in people living in high-latitude locations and with no history of colorectal polyps or adenomas was associated with a decrease in the occurrence of colorectal polyps.
 - c. In people with an adenoma, calcium and vitamin D supplementation were associated with a decreased risk of sessile serrated adenomas or polyps six to 10 years after supplementation began.
 - d. The risk of colorectal adenoma is directly related with serum vitamin D (25[OH]D) concentrations.
3. Based on the Cochrane review of the use of acupuncture and acupressure in labor, which statement is true?
 - a. Based on a high number of trials with women in low- and high-risk pregnancies, the review presents moderate-certainty evidence for acupuncture vs. a sham control in pain management satisfaction and decreased use of pharmaceutical agents; the review presents this same level of evidence for acupressure vs sham control in reducing cesarean delivery rate and in reducing pain intensity when compared with a combined control.
 - b. Based on a limited number of studies with women in low-risk pregnancies, the review presents moderate-certainty evidence for acupuncture vs. a sham control in pain management satisfaction and decreased use of pharmaceutical agents; the review presents this same level of evidence for acupressure vs. a sham control in reducing cesarean delivery rates and in reducing pain intensity when compared with a combined control.
 - c. Based on a high number of studies with women in low-risk pregnancies, the review presents moderate-certainty evidence for acupuncture vs. a sham control in pain management satisfaction and decreased use of pharmaceutical agents; this review presents high-certainty evidence for acupressure vs. a sham control in reducing pain intensity and increasing pain control satisfaction.
 - d. Based on a limited number of studies with women in low- to high-risk pregnancies, the review presents moderate-certainty evidence for acupuncture vs. a sham control in decrease in pain intensity and cesarean delivery rate; this review presents high-certainty evidence for acupressure vs. a sham control in reducing pain intensity and increasing pain control satisfaction.

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