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Stress, Substance Use, and Yoga in the Context of Community Reentry Following Incarceration

Alexandra S. Wimberly, PhD^{1,*} and Malitta Engstrom, PhD, LCSW¹

¹School of Social Policy and Practice, University of Pennsylvania, Philadelphia, PA, USA

Abstract

This field report provides a rationale for the potential of yoga to support reductions in stress and substance use among people returning to the community from jail or prison and describes an agency-based example of yoga classes offered in this context. People who have recently experienced incarceration face a multitude of stressors, which can heighten the risk of substance use and support the need to address stress reduction as a pathway to reduced substance use. One promising intervention is yoga, which has demonstrated significant stress-reduction effects among several populations. Feedback from participants in this field report's practice example reinforces the potential for yoga to decrease stress and complement substance use treatment in supporting health during the transition from incarceration to community return. Further scholarship is needed to explore the benefits and limitations of yoga in this context.

Keywords

substance use; yoga; stress reduction; reentry

Introduction

In the United States, approximately 50% of people incarcerated in state and federal prisons and more than two-thirds of people incarcerated in jails meet criteria for a substance use disorder in the year prior to their incarceration; however, less than half of people in prison with need and only 18% of people in jail with need participate in substance use treatment during incarceration (Karberg & James, 2005; Mumola & Karberg, 2006). The paucity of substance use treatment during incarceration and the challenges in linking to community-based treatment upon community return contribute to substance use during community reentry (van Olphen, Freudenberg, Fortin, & Galea, 2006). Returning to substance use during reentry can have devastating health outcomes. A study conducted in Washington

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Corresponding Author: Alexandra S. Wimberly, PhD, Social Intervention Group, School of Social Work, Columbia University, New York, NY, USA. aw3097@columbia.edu.

*Author is currently affiliated to School of Social Work, Columbia University, New York, NY, USA

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State found that drug overdose was the leading cause of death among people who were formerly incarcerated, particularly during the first two weeks of community return. During this time, drug overdose accounted for more than 70% of deaths (Binswanger et al., 2007).

Reentry services addressing substance use have never been more essential. For the first time since the Bureau of Justice Statistics began collecting jurisdictional data in 1977, the number of people released from prison in 2010 exceeded the number who entered that year (Guerino, Harrison, & Sabol, 2011). This trend has continued in all but one of the past five years (Carson, 2015; Carson & Golinelli, 2013; Guerino et al., 2011). The most recent available data from 2014 indicate that 636,346 people were released from prison, while 626,644 people were admitted (Carson, 2015). One report indicates that 40% of people with substance use problems prior to incarceration and 20% of people without substance use problems prior to incarceration were using drugs or drinking to intoxication eight to ten months following community return (Mallik-Kane & Visser, 2008). The large number of people returning to the community and the sizable proportion who experience substance use problems make attention to substance use a necessary component of efforts to facilitate the transition to the community (Mallik-Kane & Visser, 2008).

The inherent stress involved in community return can heighten the risk of substance use and can challenge efforts to maintain abstinence and other substance use-related goals. Incarceration can disrupt one's life in a multitude of ways. It can destabilize social and family relationships and can involve numerous health, financial, and housing challenges upon return to the community (Mallik-Kane & Visser, 2008). Stressors associated with reentry are particularly challenging for people with substance use problems, as they often have fewer social supports and more difficulty accessing resources (Western, Braga, Davis, & Sirois, 2015). Experiencing high levels of stress and having limited coping resources can prompt drug use as a familiar and easily accessible way to alleviate negative feelings (Sinha, 2008). Furthermore, an estimated 16% of men and 31% of women returning to the community experience symptoms of posttraumatic stress disorder (Mallik-Kane & Visser, 2008), which is associated with increased risk of problematic substance use (Brown, Recupero, & Stout, 1995; Kilpatrick et al., 2000). The well-established association between stress and substance use (Sinha, 2001, 2008) makes addressing stress in the context of community reentry an important consideration.

Prior research suggests that connecting people with substance use treatment; addressing basic needs, particularly those related to housing, employment, and health insurance; and providing case management services, particularly those offered by and coordinated between correctional staff based in facilities and the community, may be central elements of multimodal reentry interventions. However, prior research also suggests that substance use treatment in the context of multimodal reentry interventions has varied effectiveness (Freudenberg, Daniels, Crum, Perkins, & Richie, 2005; for discussion, see Grommon, Davidson, & Bynum, 2013). One promising complementary strategy for stress reduction and reduced substance use during community return is yoga, which has been shown to decrease stress among people who are incarcerated (Bilderbeck, Farias, Brazil, Jakobowitz, & Wikholm, 2013), women experiencing distress (Michalsen et al., 2005; Michalsen et al.,

2012), women with breast cancer receiving radiotherapy (Raghavendra et al., 2009), and people in high-stress professions (Cowen, 2010).

Objective

Because of yoga's effects on stress, it holds potential for reducing stress and substance use among people who are returning to the community following incarceration. To inform future research, this article offers a conceptual justification for providing yoga as a complementary approach to address substance use during community reentry. In addition, it demonstrates the feasibility of yoga classes in reentry with a community-based practice example. With attention to the conceptual basis for the potential value of yoga in reentry and the feasibility of yoga in this context, this article seeks to highlight areas of focus for future research and practice related to yoga, stress, and substance use among people returning to the community from prison or jail.

Rationale for Yoga as a Response to Substance Use Problems

Stressful experiences and attempts to manage stress contribute to substance use (Sinha, 2008). Stress challenges one's emotional and physical being, producing distress and arousal of the sympathetic nervous system (Sinha, 2001, 2008). One's perception of a situation, particularly if it is seen as threatening and exceeding one's control and psychosocial and material resources, can prompt coping responses that alleviate distress but are likely to leave the situation unchanged (Engstrom, El-Bassel, Go, & Gilbert, 2008; Lazarus & Folkman, 1984). The more persistent and chronic the stress, the more uncontrollable the stress feels, which often precipitates less effective coping responses (Sinha, 2001). At first, drug use may be one of several mechanisms to alleviate negative feelings associated with stress. However, for some individuals, it eventually becomes the primary and ongoing coping strategy to reduce stress and improve mood (Sinha, 2001).

While there is strong reason to expect that yoga's effects on stress carry potential to yield positive substance use outcomes, we identified just one prior study that investigated the effects of yoga among people with substance use problems (Shaffer, LaSalvia, & Stein, 1997). With a sample of 61 people in methadone treatment, hatha yoga and group psychotherapy were both associated with reductions in reported drug use and law-breaking activity. However, within the yoga group, people reported that yoga was instrumental to their recovery, specifically citing an improvement in physical well-being and the value of breathing skills to combat anxiety. Indeed, it has been suggested that yoga may be a feasible adjunctive therapy for substance use by treating underlying conditions such as stress and anxiety and increasing impulse control (Ricchuito, 2012). Furthermore, yoga's association with improved well-being may enhance coping resources and responses to stressful situations (Engstrom et al., 2008; Lazarus & Folkman, 1984).

While yoga's effect on substance use is not well researched, the closely related practice of mindfulness meditation has been associated with significant reductions in substance use among people who completed intensive outpatient or inpatient substance use treatment (Bowen et al., 2009; Zgierska et al., 2008), people who are incarcerated (Bowen et al., 2006), and women in inpatient and outpatient substance use treatment (Amaro, Spear,

Vallejo, Conron, & Black, 2014; Price, Wells, Donovan, & Rue, 2012). Among people who are incarcerated, mindfulness meditation has also been associated with reductions in hostility and mood disturbance and improvements in self-esteem (Samuelson, Carmody, Kabat-Zinn, & Bratt, 2007). Mindfulness meditation involves attention to, and nonjudgmental acceptance of, the present moment (Bishop et al., 2004). The distinction between yoga and mindfulness meditation is ambiguous. Both yoga and mindfulness meditation cultivate nonjudgmental acceptance of one's thoughts, sensations, and physical body. However, the means to get to this point differ.

First written about in India 2,000 years ago, yoga aims to create union between body, mind, and spirit. While there are many forms of yoga, the predominant form practiced in the United States is hatha, combining asanas (physical postures), pranayama (breath control), and dhyana (meditation) to cultivate deeper relaxation and meditation (Saraswati & Hiti, 2008). Asanas, pranayama, and dhyana reflect just three of the eight limbs of yoga. In general, yoga practice in the United States places greater emphasis on physical postures, with the idea that postures and breathing will elicit relaxation. Mindfulness interventions in the United States focus more on breathing and meditation, with less focus on physical postures. However, there have been integrations of these approaches. For example, mindfulness-based relapse prevention devotes one of the eight sessions to yoga practice (Bowen, Chawla, & Marlatt, 2011), and Moment-by-Moment in Women's Recovery: A Mindfulness Based Approach to Relapse Prevention incorporates yoga in all of its nine classes (Vallejo & Amaro, 2009).

Prior research has identified challenges and preferences involved with mindfulness meditation that are well addressed through yoga. Challenges include the difficulty with meditation when one has too much on his or her mind, as reported by people with more severe substance use problems (Chen, Comerford, Shinnick, & Ziedonis, 2010) and provider concern regarding the sleep-inducing effects of substance use treatment medications that may occur with closing one's eyes, as in meditation (Vallejo & Amaro, 2009). Preferences of mindfulness participants include an expressed interest in the integration of more yoga as reported by people experiencing alcohol use problems (Zgierska et al., 2008) and women experiencing substance use problems (Vallejo & Amaro, 2009). Given yoga's large effect on stress reduction among populations experiencing distress (Michalsen et al., 2005; Michalsen et al., 2012), yoga may be a more accessible relaxation technique than mindfulness for people under the acute stress of community return, with its emphasis on physical postures and breathing as preparatory steps toward meditation. Furthermore, prison-based yoga programs are burgeoning in numerous states, demonstrating that yoga is a feasible intervention in these settings (Grisson, 2013; Ullman, 2014).

Practice Example

The following practice example demonstrates the feasibility of offering yoga classes in the context of community reentry and the promise of such an intervention to address stress reduction and substance use among people returning to the community following incarceration. In Philadelphia, Pennsylvania, the Institute for Community Justice, a community-based initiative that aims to reduce the deleterious effects of mass imprisonment

through service provision and advocacy, has offered yoga classes at its Reentry Center since 2009. The Reentry Center offers courses in skill building, continuing education, and creative expression for people returning to the community following incarceration. Clients who attend the Reentry Center often experience many challenges associated with reentry, including obtaining housing, establishing employment, and addressing substance use, mental health, and other medical issues. It is estimated that 80% of people who attend drop-in services at the Reentry Center experience substance use problems, and it is likely that yoga class attendees have similar substance use rates (director of the Institute for Community Justice, personal communication, March 8, 2016).

Between 2013 and mid-year 2015, 204 people voluntarily attended the Reentry Center's yoga classes, taught by the first author. Twenty percent of people attended an average of 12 classes ($n = 40$, $SD = 5$), 40% attended an average of three classes ($n = 82$, $SD = 1$), and 40% attended one class ($n = 82$, $SD = 1$). Demographic characteristics of participants mirror those of the Reentry Center (87% male, 12% female, 1% transgender; 77% African American, 15% Latino/a, 8% Caucasian).

The 60-minute yoga classes, offered weekly, were taught in the hatha tradition. The class format began with an opening relaxation pose during which the theme of the class was introduced. Class themes had both a physical and psychological focus based on Patanjali's Yoga Sutra, the foundational yoga text. After the opening pose, a series of supine, standing, and sitting postures aimed to stretch and strengthen the body. The class ended with a final relaxation pose of shavasana, a restorative pose that allows the body and mind to relax after the exertion of the class postures.

Participant feedback highlighted relaxation goals prior to beginning yoga classes and positive health and well-being gains after participation in the classes. Through preenrollment questionnaires, participants reported that their primary reasons for attending yoga classes were relaxation and stress reduction. While there was no systematic method employed to collect postintervention data, following class participation, some participants spontaneously described stress-reduction benefits of yoga participation. For example, participants used certain yoga exercises daily to help them fall asleep at night. Participants described yoga as alleviating stress and tension that arose from various challenges, including managing strained family relationships, securing stable living, and pursuing employment opportunities. Additionally, participants described using yoga exercises to alleviate physical pain associated with activities such as walking, playing basketball, and completing physically demanding occupational tasks.

In light of known links between substance use and stress, this feedback regarding yoga's potential to reduce subjective burdens of physical and psychological stress suggests that yoga may also carry potential to reduce the use of substances to alleviate stress. Sinha (2008) suggests that among people who use substances to alleviate stress, behavioral strategies are needed to develop more effective stress responses in order to decrease substance use when one is faced with a stressful situation. We hypothesize that yoga may be one such intervention that can interrupt the cycle of using substances to temporarily alleviate stress by improving one's coping resources, including physical and psychological well-being

and coping responses (Engstrom et al., 2008; Lazarus & Folkman, 1984), particularly during the stressful time of community return. The use of rigorous designs and standardized measures of stress and substance use in future research would facilitate testing this hypothesis.

Additionally, while many of the class participants were new to yoga, participants often found similarities with their previous athletic experiences. These connections made yoga a familiar, accessible practice. Participants also connected the yoga classes with health goals, such as increasing exercise and improving nutrition.

Some participants candidly expressed skepticism that yoga could positively affect their lives outside of the yoga classroom. Many participants experience serious situational challenges that will not be solved solely through a reduction in stress that occurs from a yoga class. Yoga will not and does not purport to solve all of the challenges associated with reentry; however, through regular practice, yoga may improve one's stress response, facilitating the ability to navigate and manage these and other challenges.

Although it holds strong potential to facilitate positive gains, it is also important to recognize yoga's limitations. Yoga is not a universally appealing intervention. Forty percent of the Reentry Center participants tried yoga only once. Although feedback was not collected regarding why participants attended a single class, we hypothesize that it was due to either lack of interest in yoga or barriers to class attendance, including transportation and other obligations, such as work and health appointments. Attendance at many Institute for Community Justice programs is variable because of the many challenges people face in meeting basic needs in the context of reentry. Understanding attendance patterns and, as applicable, enhancing continued engagement for interested participants would be useful aims of future research in this area.

Finally, successful yoga implementation requires attention to several key considerations. First, among people who have histories of trauma and experience sensitivity in their bodies, yoga poses may require adaptation to avoid reactivation of trauma (Vallejo & Amaro, 2009). Second, it is important that yoga practice and research be implemented in ways that avoid musculoskeletal and nervous system injuries (Fishbein, Barrett, Teranishi, Saper, & Kruger, 2014). Third, yoga in the United States has been critiqued for commodification and appropriation of a South Asian practice. Additionally, because of the lack of diversity among teachers and participants in many U.S.-based yoga programs, it has been critiqued as elitist and exclusionary (Patankar, 2014). With the goal of ensuring that the benefits of yoga reach a wider audience, organizations are raising awareness of yoga's origins to facilitate culturally sensitive provision of yoga classes and to expand yoga access to underrepresented groups (Center for Transformative Action, 2017; Singh, 2014). Given its largely unexplored and untapped promise, further research is needed to examine yoga's effects, appeal, and limitations in the context of community reentry and beyond.

The transition to the community following incarceration is highly stressful and associated with high risk of substance use problems and overdose. Yoga is not a panacea to alleviate all of the challenges of reentry or to resolve all substance use problems. However, as the

conceptual framework and practice example presented in this article suggest, yoga is one intervention that holds promise to complement substance use treatment and ancillary services to support health gains and stress reduction, which may yield reduced substance use and improved ability to manage complex challenges among people returning to the community following incarceration.

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