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# “Tougher than ever”: An exploration of relapse prevention strategies among patients recovering from poly-substance use disorders in Ghana

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## Abstract

**Objective:** Drug dependency has been typified as a persistent relapsing disorder. Overall, 65% of people with substance use disorders relapse within one year after treatment. Recent interventions have focussed on contextually relevant relapse prevention strategies. This study explored relapse prevention strategies utilised by patients recovering from poly-substance use disorders one year after treatment at a Psychiatric Rehabilitation Unit in Ghana. **Methods:** The study adopted a descriptive phenomenology design and was conducted at the Psychiatric Rehabilitation Unit of the Regional Hospital, Sunyani, Ghana. A purposive sample of 15 patients recovering from poly-substance use disorders were recruited. Data were collected through in-depth interviews with a semistructured guide and analysed using the content analysis procedures. **Results:** Five key themes emerged from the analysis of the data that described participants' relapse prevention strategies. These include clinical strategies, self-initiated tactics, spirituality and religious engagements, communalism and social support network. **Conclusions:** The evidence from this study supports a multilevel treatment strategy for patients with poly-substance disorders. We found that a combination of clinical, individual and contextual factors significantly contribute to relapse prevention efforts in the Ghanaian context. Clinicians and treatment services should explore, evaluate, strengthen and incorporate these emerging themes into their relapse prevention interventions protocols.

## Keywords

Relapse prevention strategies, qualitative, phenomenology, poly-substance misuse, substance misuse rehabilitation, Ghana

## History

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## Introduction

A wealth of research has demonstrated that relapse to substance misuse remains a major challenge militating against abstinence in persons receiving treatment for substance use disorders (Hendershot, Witkiewitz, George, & Marlatt, 2011; Steckler, Witkiewitz, & Marlatt, 2013; Weerasinghe & Bartone, 2016). Researchers and clinicians admit that whereas it is difficult for a client to quit illicit drug use, it is even more difficult to maintain abstinent gains (Ducray, Darker, Smyth, 2012; Weerasinghe & Bartone, 2016). Notwithstanding the existing client-focussed and evidence-based treatment modules for substance use disorders, most treated patients relapse after a short period of abstinence. On average, about 75% of people with alcohol and drug-related problems relapse within 3–6 months duration after treatment (Kuria, 2013; Marlatt & Gordon, 1985; Smyth, Barry, Keenan, & Ducray, 2010). Relapse to alcohol and drug use is a global public health concern especially in most low- and middle-income countries, with adverse physical, psychosocial and economic implications. An interplay of individual, familial, communal and treatment-based

factors precipitate relapse to substance misuse (Appiah, Danquah, Nyarko, Ofori-Atta, & Aziato, 2017; Ducray et al., 2012; Marlatt & Gordon, 1985).

In Ghana, similar to global trends, there has been an increase in the use of illicit drugs in the past decade. Data from the Out-patient Monthly Morbidity Returns (OMMR) of the Psychiatric Rehabilitation Unit of the Regional Hospital, Sunyani, Ghana, for instance, showed that a total of 1839 patients reported with mental health problems associated with alcohol and illicit drugs in 2015, as compared with 1046 and 963 in 2014 and 2013, respectively (OMMR: Regional Hospital Sunyani, 2016). Ofori-Atta, Read, Lund and MHaPP Research Programme Consortium (2010) reports that a total of 86,003 outpatients reported to the three national psychiatric hospitals with mental and behavioural disorders due to misuse of psychoactive substances. Overall, it is estimated that about 1.2 million Ghanaians have alcohol and drug-related problems (Ofori-Atta et al., 2010). A multitude of factors including high unemployment among the youth, frustration of highly qualified students without access for further education, adverse economic situation in the country (Brown-Acquaye, 2001), large family size (Lamptey, 2005), curiosity and peer influence (Nkyi, 2014), and sense of loss, interpersonal conflicts, religio-cultural and treatment-based issues (Appiah

et al., 2017) work together to initiate substance use and maintain the relapse cycle in Ghana.

Prior research efforts and clinical works focussing on substance misuse and relapse prevention have led to the development of a number of clinical interventions. Previous works by Gorski, Kelley and Havens (1993), and by Marlatt and Gordon (1985) on substance misuse relapse are noteworthy. Drawing insights from several years of clinical practice and research, these clinicians and researchers primarily theorised the relapse phenomenon and expounded the factors that initiate the relapse process. Lessons from these models and theories have served as invaluable reference to researchers and other clinicians in the development of substance misuse relapse prevention interventions. Gorski et al. (1993), for instance, identified a number of principles considered fundamental to the substance misuse relapse prevention process. Self-regulation and stabilisation, a major principle in their Relapse Prevention Procedure, refers to strategies that increase a patient's ability to self-regulate thinking, judgment, memory, feelings and behaviour in order to help decrease their inclination to relapse. Other strategies such as mindfulness-based relapse prevention, integration and self-assessment, insight and relapse education, and self-knowledge and identification of warning signs are incorporated into intervention protocols at various points of treatments (Bowen, Chawla, & Marlatt, 2011; Kaye, Vadivelu, & Urman, 2015). Focusing on the role of high-risk situations in the relapse process, Parks, Marlatt and Anderson (2004) also developed the cognitive-behavioral model to illustrate the relapse phenomenon and to enhance client's coping skills. The model includes clinical guidelines for implementing substance misuse relapse prevention therapy.

There is evidence to suggest that psychological-based interventions exist that reduce or stop the misuse of alcohol and illicit drugs, as well as to advance the psychosocial adjustments of individuals with alcohol and drug-related problems (Ibrahim & Kumar, 2009; Kaye et al., 2015; Lian, & Chu, 2013). Over the decades, clinicians have employed principles and techniques underlying cognitive-behavioural therapy, the 12-step facilitation therapy, motivational interviewing, anger management, brief intervention and the rational-emotive behaviour therapy to treat substance use disorders and to prevent relapse among persons with alcohol and drug-related problems (Gorski et al., 1993; Kaye et al., 2015; SAMHSA, 2009). Global relapse prevention strategies and coping mechanisms are implemented to manage the possible craving and the irrational thinking that usually instigate lapses in high-risk situations. To advance the rehabilitation process, clinicians often include behaviour modification and coping skills, such as the progressive muscle relaxation, emotional imagery, assertive training, anger management, thoughts and cravings management and problem-solving skills in the relapse prevention efforts (Shafiei, Hoseini, Bibak, & Azmal, 2014; Witkiewitz & Marlatt, 2004).

Previous studies (Greenfield et al., 2000; Irvin et al., 1999) and more recent ones (Hendershot et al., 2011; Magill & Ray, 2009) have also demonstrated the efficacy of psychosocial interventions in relapse prevention. The primary tasks of relapse prevention interventions include identifying the needs

being met by the use of the substances and to develop more appropriate coping skills as alternatives in meeting these needs (Kadden & Cooney, 2005). Research indicate that persons with alcohol- and drug-related problems remain abstinent in spite of several relapse episodes when they are able to utilise active, rather than avoidant coping strategies (Bowen et al., 2011). In investigating the types of coping skills used by nicotine-dependent patients to prevent relapse, Araujo, Oliveira, Pedroso, and Castro (2009) found self-control, distancing and accepting responsibility as the most frequent coping strategies employed to combat the urge to use nicotine. Research evidence demonstrates that coping skills training are valuable for resiliency enhancement and relapse prevention in individuals with substance use disorders (Kuria, 2013; Shafiei et al., 2014). Relapse prevention strategies such as avoiding situations which elicit craving, awareness of negative consequences of relapse, distraction, remembering past unpleasant experiences with alcohol, drugs or gambling, and remembering the advantages of abstinence have been successfully utilised to prevent relapse to substance use (Brandon, Vidrine, & Litvin, 2007). Religious and spiritual engagements have also been associated with decrease use or quitting the use of alcohol or illicit drugs and prevention of relapse (Conner, Anglin, Annon, & Longshore, 2009; Kendler et al., 2003). For instance, Krentzman, Cranford, and Robinson (2013) found that private religious practices mediated the relationship between Alcoholics Anonymous attendance and abstinent days and drinks per drinking day. Other studies have reported additional forms of relapse prevention techniques among patients in recovery of substance use disorders, including keeping busy, indulging in food and drinks, deep breathing, and avoiding high-risk situations (O'Connell, Hosein, Schwartz & Leibowitz, 2007), family and social relationships, support systems, community supports and social skills (Yang, Rohrbach, & Daley, 2013) and building self-control strengths (Muraven, 2010).

Drawing on empirical studies and theoretical models of substance misuse relapse prevention, Golestan, Abdullah, Ahmad, and Anjomshoa (2010) and Kuria (2013) advocate for the consideration of environmental and contextual factors in relapse prevention efforts. Hunter-Reel, McCrady, and Hildebrandt (2009) also argue that clinicians should consider individual and social environment factors when working to develop interventions for persons with alcohol and drug-related problems. In Ghana, research that explores substance misuse relapse and relapse prevention in its strictest sense are limited. Most available studies (Affinnih, 1999; Lamptey, 2005; Redvers, Appiah-Poku, & Laugharne, 2006) have explored the prevalence of substance misuse in Ghana. In a recent effort, Appiah et al. (2017) examined the factors that precipitate relapse to substance misuse in Ghana. However, no study was retrieved that focussed on relapse prevention strategies among patients recovering from poly-substance use disorders in Ghana. An understanding of the various relapse prevention techniques successfully utilised by patients recovering from poly-substance use disorders will have both clinical practice and policy implications. Findings from this study, for instance, would be insightful for Ghanaian clinicians and substance misuse counsellors in their relapse prevention and rehabilitation efforts. Furthermore, findings

will serve as reference for mental health authorities, personnel working in drug rehabilitation centres, and health policy makers to institute more effective measures and policies to advance relapse prevention in the Ghanaian context.

## Methods

### Design and setting

The study adopted a descriptive phenomenology design. The phenomenological approach allows for in-depth analysis of participants' responses with the view of identifying recurring themes that could form the basis for developing prevention strategies for substance misuse disorders as well as suggest avenue for further research. Creswell (2014) suggests that phenomenology design permits adequate exploration of lived experiences of a phenomenon.

Data was collated from the Psychiatric Rehabilitation Unit of the Regional Hospital in Sunyani, in the Brong Ahafo region of Ghana. The Brong Ahafo region is one of 10 administrative regions in Ghana with a population of 2.4 million people (Ghana Statistical Service, 2013). Majority of the people are Akans, in their mid-years and in the low-income class (Ghana Statistical Service, 2013). The Psychiatric Rehabilitation Unit, located in Sunyani, the regional capital, was established in August 2003 and serves as a referral centre for the entire Brong Ahafo and neighbouring regions. The Unit was superintended by a psychiatrist and nine staff, including a part-time psychotherapist and eight psychiatric nurses, and offers in- and out-patient psychiatric services.

### Participants

The study received ethical clearance from the University of Ghana and the Rehabilitation Unit of the Regional Hospital. The sample comprised of male and female adult patients recovering from poly-substance use disorders. The inclusion criteria were male and female patients recovering from poly-substance use disorders, aged from 18 to 64 years who have remained abstinent one year after treatment for multiple substance misuse including combinations of marijuana, alcohol, heroin and cocaine. The purposive sampling technique was used to recruit participants. A total of 15 patients were recruited into the study. Participants were aged between 24 and 62 years. Thirteen (13) participants were males, five (5) were single, six (6) had completed secondary level education, and eight (8) had previously misused both alcohol and marijuana. A total of nine (9) participants received both medication and counselling during treatment. At least each participant experienced one relapse episode before remaining abstinent one year post treatment. Table 1 provides further characteristics of the sample.

Hospital records of patients recovering from poly-substance use disorders were consulted and suitable persons were invited to participate. Individual informed consent was obtained and face-to-face interviews were scheduled at their convenience. All participants who consented completed the study. Interviews were conducted in English, and were audio-taped and transcribed verbatim. Interviews focussed on participants' relapse prevention strategies adopted to remain

Table 1. Sample characteristics ( $N = 15^a$ ).

Demographic	<i>n</i>
Gender	
Male	13
Female	2
Age	
18–29 years	3
30–49 years	8
50–69 years	4
Education	
Basic	4
Secondary	6
Tertiary	5
Religion	
Christian	11
Traditional	4
Marital status	
Single	5
Married	6
Divorce	4
Substance(s) previously abused	
Alcohol and marijuana	8
Marijuana and heroin	4
Heroin and alcohol	2
Cocaine and alcohol	1
Cocaine and marijuana	1
Treatments received	
Medication only	2
Counselling only	4
Medication and Counselling	9

<sup>a</sup>Sample include 15 patients recovering from poly-substance use disorders.

abstinent. A broad, initial, open-ended question: "Please tell me about the strategies you adopted to help you stay off drug or alcohol misuse after treatment?" elicited participants' relapse prevention experiences. Follow up questions were asked to gain understanding of participants' experiences. All interviews were conducted by the first author, who is experienced in qualitative interviewing, and lasted between 40 and 50 minutes.

### Analysis

The principles of content analysis (Graneheim & Lundman, 2004; Miles & Huberman, 1994) were systematically followed to analyse the data. Transcripts and field notes were read and re-read severally for in-depth understanding of participants' relapse prevention experiences. The first author manually coded, categorised and developed themes by searching for patterns and meanings. Each author independently refined these preliminary codes, reviewed and discussed the categories, themes and subthemes to ensure participants' experiences were appropriately represented. Consensus was reached after a review of the themes and subthemes as necessary. Illustrative quotes were used to support findings.

### Results

Three main themes with five corresponding subthemes emerged that described participants' relapse prevention experiences. These include Clinical-Contextual Strategies (Clinical Strategies; Self-initiated strategies), Spirituality and Religious Engagements; and Communal Spirit and Support Network (Communalism; Social connection and

support). The unique combination of these experiences highlighted the links among abstinent efforts, cultural influence and clinical impacts and gave divergent emphases to the various themes.

### Clinical-contextual strategies

This theme describes clinical and contextual relapse prevention strategies that were utilised by participants to prevent relapse. They include evidence-based clinical strategies acquired from counselling sessions and self-initiated strategies.

#### Clinical strategies

Most participants ( $n=12$ ) shared a belief that the relapse prevention techniques discussed during counselling sessions with the clinical psychotherapist proved helpful. Persons who reported with alcohol- and drug-related problems underwent planned counselling and therapy sessions aimed to provide insights and relapse coping and prevention skills. Components of cognitive-behavioural therapy and rational-emotive behaviour therapy including time outs, thought stopping, positive self-talk, motivational enhancement/interviewing, building new positive friendship and activities and assertive training were discussed to empower patients to gain control over the urge to relapse. A 40-year-old male recounted how he applied the positive-self talk skills he acquired from a session to help him to abstain:

... he taught me how I can say certain positive things about myself when I face the temptation to smoke. So for me... I tell myself, 'I'm wiser... I have self-control. I won't yield to this habit because it'll destroy me. I have a better future'. It was like motivating myself...and it works...it's been helpful. (P13)

Another participant, a 52-year-old man, told how his use of relaxation technique helped him to control his withdrawal symptoms when he stopped to use alcohol and marijuana:

...when I experience the feeling at the work place...and I resist...sometimes I become anxious and restless. I take a short break to do some PMR [Progressive Muscle Relaxation] exercises I learnt from counselling. Now, I'm also able to turn down offers from my friends...gently. I don't even go close to them anymore... (P9)

Within a short duration after treatment completion, patients often experienced strong urges to resume substance use. Most patients, having participated in the sessions, utilised the skills and strategies they acquired to combat high-risk situations, such as periods of intense craving or when offered free substances by friends and during social gatherings.

#### Self-initiated strategies

Faced with unrelenting desire and unfavourable environmental conditions to use substances, some participants ( $n=9$ ) instituted a number of self-initiated techniques to support their efforts to maintain wellbriety, with varying successes.

Self-initiated strategies, including taking a walk to public places such as the market square or church house, singing a Christian song that tells about God's redemption and power to deliver from sin, and inducing self-inflicting pain including biting a finger or pulling a hair, have been utilised to fight the urge to use alcohol and drugs. A 44 year old woman told of how she employed a self-initiated strategy to remain abstinent from alcohol addiction:

...it's been difficult. Sometimes when I feel like getting a drink, I just take a walk around town. I often end up at the market...and sit by a trader to chat. I didn't know her until I started that. She also didn't know why I often come around...I think this has helped me very much... (P5)

Another participant, a 56-year-old man also recounted:

sometimes...when I have the strong feeling to smoke, I walk a long distance to a shop and buy something which is of the same price as a 'roll'...something like a fruit juice or a tin of milo...anything that comes to mind. When I do that, I tell myself that I've spent so much today and there's no way I'm going to spend money until the next day... (P1)

Beyond the evidence-based clinical interventions, these self-initiated techniques appeared an effective among participants who initiated and utilised them.

### Spirituality and religious engagements

Statistics from Ghana's recent population census indicate that the majority of Ghanaians are religious and profess either the christian (71.2%), moslem (17.6%) or the traditional African (5.2%) religion (Ghana Statistical Service, 2013). For the most part, religious engagements impact society positively (Welch, Tittle, & Grasmick, 2006). We found spirituality and religious engagements as a major contributor to participants' sustained recovery. Majority of participants ( $n=11$ ) cited religious practices, including prayer, fasting and meditations on selected Biblical verses as supportive of their commitments to stay off illicit substances one year after treatment completion. A 34-year-old man told of how his engagement in spiritual activities helped him resist the urge to resume cocaine and alcohol use:

...I visited the hospital several times...so my auntie took me to a prayer camp where we spent two weeks fasting and praying. It was difficult though...I had to fast and pray all the time. After a series of deliverances and prophetic utterances, the prophet told me I was free...and that was it... (P8)

Another participant, a 36-year-old woman, narrated how she finally stopped an addiction to alcohol after she took up a role as a chorister in church:

...after 6 years of abusing alcohol, my sister encouraged me to go to church...I later joined the church choir. Initially, it wasn't easy for me to associate with the church

members. But now I have settled well. . .and have not even thought about alcohol again. . . (P14)

Spirituality appears to offer a sense of inner peace and experiences of calm and meditation that results in leading a more ordered and predictable life. Religious affiliation also offers people a sense of belongingness and the recognition that one belongs to a community that shares other's experiences and struggles. This strengthens one another to aspire and develop the needed motivation to overcome problem behaviours.

### Communal spirit and support network

This theme describes the communal and socio-cultural support systems that exist in most Ghanaian communities and how these strengthened the abstinence efforts of patients.

#### Communalism

For many patients recovering from poly-substance use disorders, the Ghanaian communal living environment appear to play an invaluable role in sustaining their abstinence gains. The sense of belongingness and communal spirit that exist in most Ghanaian communities afforded community members the privilege and responsibility to offer support to vulnerable members of the community. About two thirds of the participants ( $n=9$ ) reported benefitting from the advice, words of encouragement and the admonition given by family members, friends, coworkers, neighbours and community elders about the negative effects of illicit drugs. A 38-year-old man narrated:

. . .I owe it to my family and the community members. . .who were very supportive in my recovery. . .most of them invited me home to have long discussions. . .advised and encouraged me to stop the drinking and smoking. . . I'm happy they were there for me. . . (P6)

Another participant also recounted:

. . .at first I became angry when people try to talk to me to stop drinking and smoking. But after some time I realized that what they were telling is the truth so I told myself that I will prove to them that I can stop. . .so I started to do whatever I can to stop . . .but it has not been easy. . . (P3)

The misuse of illicit drugs and alcohol, with its attendant problems, remains unacceptable in many Ghanaian societies. Sociocultural norms permit community members to express their disapproval at a problem behaviour and to offer needed counsel and support. Few community members who previously treated for alcohol- and drug-related problems also supported participants by sharing experiences and coping skills.

### Social connection and supports

Relapse to alcohol and drug use, similar to most problem behaviours, is maintained, partly by unsupportive environmental and social conditions (Appiah et al., 2017; Brandon et al., 2007; Lian & Chu, 2013). It is well established that social supports forms a vital component of interventions that

focus on changing problem behaviours to healthy ones. Adequate social support such as provision of living arrangements, support with treatment cost and employment opportunities by family and community members strengthens abstinence efforts of patients recovering from poly-substance use disorders (Ducray et al., 2012). In the context of a supporting family and community, many participants ( $n=11$ ) were highly motivated to fight their cravings and high-risk situations to maintain treatment gains. In many Ghanaian townships and rural communities, sociocultural norms and communal ethics grants community members the opportunity to query and enquire about one's apparent problem behaviour and challenges and to offer support as abled. A 54 year old man narrated:

. . .fortunately for me, I have family and friends who were supportive. . .and invested resources towards my recovery. My senior brother offered me a job that kept me busy. . . Later, my uncle also asked me to move to live with his family. I think that's what really helped me to stay clean till now. . . (P4)

A 29 year old man also narrated:

. . .I didn't have a job. . .I was really suffering. . .so when my elder sister visited us from Accra, she asked whether I'll like to work at a construction site. She contacted her friend. . .who employed me to work with him. . .he also advised me a lot and encouraged me to stop drinking. . .and took me with him to church. (P15)

For many patients recovering from poly-substance use disorders, a sense of connection and support from family and friends served as an invaluable resource and strength that facilitated their recovery.

### Discussion

This study examined relapse prevention strategies utilised by patients recovering from poly-substance use disorders one year after treatment completion. We employed a qualitative methodology to explore this understudied area. The findings demonstrate that long-term recovery from drug addiction requires the application of a multitude of strategies comprising clinically proven interventions, contextually-driven strategies and self-initiated tactics. In addition, the findings underscores the struggles and efforts made by persons in treatment for substance use disorders to remain abstinent.

Findings from the present study suggest that rehabilitation process for patients recovering from substance use disorders are multifactorial, including empowering them to gain insight into the problem behaviour, take control over high-risk situations, and develop coping and other preventive skills. These processes are partly facilitated by the family and confidants of the client. Similar to earlier findings (Hendershot et al., 2011; Nordfjærn, 2011), this study found family support to positively impact the recovery process. We also found that community members contributed significantly towards maintaining abstinent gains. The Ghanaian communal culture provided community members the opportunity to reprove, counsel, and support vulnerable members of society

(Nukunya, 2003). Beyond serving as a form of social control, this cultural tenet also motivates individuals to work hard to meet societal expectations and to avoid social sanctions and criticisms (Nukunya, 2003). Similar to previous findings by Yang, Rohrbach and Daley (2013), we found that patients recovering from poly-substance use disorders became empowered by the advice and encouragement from family and community members in ways that advanced their recovery. This important contribution of family and community members in the recovery process calls for consideration to include the family and community systems in relapse prevention programmes. The family forms an integral part of healthcare decision-making and contributes to direct care of patients (Coyne, Wollin, & Creedy, 2012; Nordfjærn, 2011). It is important that clinicians and drug abuse counsellors acknowledge the central role of the family and community in relapse prevention and consider them as potential resources and strengths in the rehabilitation process. Clinicians and counsellors should develop policies and intervention protocols that encourages active involvement of families of patients recovering from poly-substance use disorders for better care outcomes.

The findings also highlight the need for more evidence-based and clinically proven intervention strategies in relapse prevention. Many participants ( $n = 12$ ) in this study reported the use of a number of cognitive and behavioural interventions discussed during therapy sessions in their relapse prevention efforts. Participants employed basic but effective techniques such as words of affirmation and positive self-talk, anxiety reduction skills, anger management, problem-solving skills and assertive skills under various circumstances in their abstinence efforts. Few participants, for instance, reportedly used assertive skills to turn down alcoholic beverages offered at funerals and social events. This finding relates with previous works by Muraven (2010) and Araujo et al. (2009) who found self-control, distancing and accepting responsibility as the most frequent coping strategies employed to combat the urge to relapse. Globally, cognitive-behavioural therapy remains the “gold standard” for the treatment of many psychological problems (Hendershot et al., 2011; Witkiewitz & Marlatt, 2004). Over the decades, clinicians have developed and evaluated a number of clinical strategies for treating the addictive behaviours (Gorski et al., 1993 SAMHSA, 2009). Earlier studies also identified the use of evidence-based clinical interventions such as assertive training, anger management, thoughts and cravings management, refusing requests, and problem-solving skills in their relapse prevention protocols (Brandon et al., 2007; Connors, Donovan, & DiClemente, 2001). Together, it is important for clinicians and clients to explore clinical interventions that are both contextually relevant and practicable when working to prevent relapse to alcohol and drugs misuse.

We found that a number of participants ( $n = 8$ ) also self-initiated certain techniques to prevent relapse. During periods of strong crave for substances, participants instigated various tactics to fight these urges including biting a finger or pulling hair to temporarily inflict pain, taking a walk to public places and singing about God’s redemption and power to deliver from problem behaviours. These self-initiated strategies indicate participants’ pursuit for more contextual and

practicable relapse prevention strategies. Substance abuse counsellors should encourage clients to explore healthy self-initiated strategies to serve as backups to clinically proven interventions. We did not find a study report of self-initiated relapse prevention strategies in the literature reviewed in this study. Although some of these techniques may not be clinically appropriate and healthy, they demonstrate potential strengths and viable opportunities. Clinicians should acknowledge clients’ efforts and assist them to identify healthy and practicable self-initiated techniques to complement existing clinical strategies.

The findings also suggest a need to explore religious faith and spiritual elements in the rehabilitation of substance misusers and healthcare in general. Ghana, similar to many other African countries, is a highly religious country (Deaton & Tortora, 2015). Religion offers individuals the environment, support and the medium to connect to a higher being and to reclaim a sense of personal worth. Many patients ( $n = 11$ ) described the sense of belongingness and receptivity of religious members and its influence in sustaining their recovery. Other patients also recounted how their engagements in various spiritual activities aided their recovery. In highly religious countries, such as Ghana, it is important that clinicians explore the religiosity of clients and to consider the inclusion of religious and spiritual tenets in treatment plans when deemed potentially important. This finding supports previous findings by Conner et al. (2009), Kendler et al. (2003), and Krentzman et al. (2013) who found significant relationship between spirituality and religious engagements and a decrease inclination to use or relapse to substance use.

This study may be considered in the light of several limitations. First, study participants were recruited from only one institution. Patients recovering from poly-substance use disorders from other regions may have different relapse prevention experiences. In addition, participants in this study were patients recovering from poly-substance use disorders who previously misused marijuana, heroin, alcohol, cocaine or a combination of these substances. The factors initiating and maintaining relapse for each of these substances may be different. Furthermore, this study recruited only English speaking participants. Considering that 23.4% of Ghanaians are non-English speakers (Ghana Statistical Service, 2013), this sample is not a representative of patients recovering from poly-substance use disorders in Ghana. Lastly, like all qualitative studies, the small sample size used does not permit generalisation of findings to all patients recovering poly-substance use.

In spite of these limitations, this study carries important policy and clinical implications for substance misuse relapse prevention in Ghana. Our data suggest that drug addiction interventions should focus on providing holistic interventions that include the strengthening and promotion of family and community networks of former drug misusers to serve as role models to patients recovering from poly-substance use disorders. Findings from this study suggest that the need for clinicians to educate family members about the implication of support systems for patients recovering from poly-substance use disorders. It is equally essential for clinicians to evaluate contextual relapse prevention strategies discussed with clients to explore their effectiveness in order to recommend to other

patients recovering from poly-substance use disorders, while encouraging self-initiated strategies.

In addition, the present study revealed that majority of patients recovering from poly-substance use disorders benefited from clinical interventions discussed during sessions. It is important for the Ministry of Health to train and employ more mental health professionals at the district and municipal hospitals to help provide psychosocial interventions for patients recovering from poly-substance use disorders and others with problem behaviours. Lastly, clinicians should consider spirituality as a potential important component of the drug misuse recovery process in Ghana. Drug misuse counsellors should appraise client's spiritual beliefs and consider including such faith-elements in interventions as appropriate.

This study represents the beginning steps of further understanding of the relapse prevention strategies among patients recovering from poly-substance use disorders. Further research is needed to expound these strategies in this and previous studies and to explore the roles of religion, spiritual engagements and self-initiated strategies in relapse prevention and healthcare in general.

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### Declaration of interest

The authors have no conflicts of interest.

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