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Attitudes of healthcare professionals toward individuals with alcohol and substance use disorders: A comparative study

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Abstract

Stigmatizing attitudes held by healthcare professionals toward individuals with alcohol and substance use disorders (ASUD) can hinder access to care and negatively affect treatment outcomes. Clinical experience may play a key role in shaping these attitudes.

This cross-sectional study included 230 healthcare professionals, 96 of whom had experience in addiction treatment centers and 134 who worked in general medical settings. Participants completed three validated instruments: the Alcohol Use Disorder Stigma Scale, the Substance Use Disorder Stigma Scale, and the Attitudes Toward Individuals Using Addictive Substances Scale. Independent samples t-tests were conducted to assess group differences.

Professionals with addiction treatment experience exhibited significantly lower levels of stigma and negative attitudes. Alcohol-related stigma scores were 52.40 (SD = 17.71) for experienced professionals and 74.21 (SD = 19.06) for those without experience ($t(228) = -8.81$, $p < .001$). For substance-related stigma, the scores were 74.33 (SD = 24.25) vs. 97.05 (SD = 18.76) ($t(228) = -8.01$, $p < .001$). Negative attitude scores toward addictive substance users were also lower in the experienced group: 77.38 (SD = 20.42) vs. 97.05 (SD = 21.06) ($t(228) = -7.07$, $p < .001$).

Direct clinical experience with individuals affected by ASUD is associated with reduced stigma among healthcare professionals. Integrating supervised clinical exposure into healthcare education may be an effective strategy to reduce stigma and improve the quality of addiction care.

Keywords: stigma, substance use disorder, alcohol use disorder, healthcare professionals

Main points

- Healthcare professionals employed in addiction treatment centers demonstrate significantly lower levels of stigma toward individuals with ASUD compared to their counterparts in general healthcare settings.
- Direct clinical exposure to individuals with addiction appears to be a key factor in reducing stigmatizing attitudes and may contribute to the development of more compassionate and informed perspectives among healthcare professionals.
- Integrating mandatory clinical rotations in addiction treatment centers into medical and nursing education programs may serve as a practical and effective strategy to reduce stigma and improve the quality of care for individuals with ASUD.
- Educational interventions, particularly those involving structured interactions with individuals experiencing addiction, hold promise in fostering empathy and reshaping negative attitudes among healthcare providers.

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Introduction

The attitudes of healthcare professionals toward individuals with substance use disorders (SUD) play a pivotal role in shaping treatment outcomes and determining access to healthcare services. Nonetheless, the treatment of individuals with SUD is frequently perceived by healthcare providers as complex, burdensome, and emotionally taxing (Ball et al., 2006; Eaton, 2004; Neale et al., 2008). Stigmatization—manifested through labeling, discrimination, status loss, and social exclusion—significantly impedes individuals' access to healthcare, social support, and stable living conditions (Link & Phelan, 2001). Empirical studies have demonstrated that stigmatization associated with SUD is more widespread and intense than stigmatization associated with other mental health conditions (Barry et al., 2014). Such stigmatization fosters feelings of shame and inadequacy, which may intensify substance use among affected individuals (Luoma et al., 2014; Rahim & Patton, 2015; Rivera et al., 2014).

Negative perceptions held by healthcare professionals may hinder comprehensive understanding of patients' needs and diminish their engagement in treatment. Moreover, such attitudes often promote a reductionist perspective—one that narrowly defines individuals by their addiction while overlooking co-occurring physical and mental health conditions. This absence of a holistic, patient-centered approach complicates the treatment process for both patients and providers (Palmer et al., 2009; Thornicroft et al., 2007).

Among individuals with addiction syndromes, those with alcohol use disorder (AUD) are particularly burdened by intense stigma. Research indicates that individuals with AUD experience greater levels of social exclusion and discrimination than those with other psychiatric conditions (Kilian et al., 2021; Schomerus et al., 2011). A key driver of this stigma is the striking perception of alcohol dependence as a personal or moral failing (Volkow et al., 2021). The frequent use of stigmatizing labels such as "alcoholic" perpetuates this notion by reducing individuals to their disorder, thereby obscuring their broader identity and complexity. In contrast, adopting people-first language—such as "individuals with AUD"—has been recommended as a strategy to counteract stigma and promote dignity in clinical discourse (Shi et al., 2022).

Several key factors shape the attitudes of healthcare professionals toward individuals with SUD, most notably their level of knowledge about addiction and the extent of their hands-on clinical experience. Increased experience with addiction—through both theoretical understanding and sustained interaction with affected individuals—has been consistently linked to lower levels of stigmatizing attitudes (Corrigan et al., 2003). Healthcare professionals working in addiction treatment centers are more likely to demonstrate compassionate and informed perspectives (Gilchrist et al., 2011; Van Boekel et al., 2013). Conversely, those lacking such experience, particularly professionals in non-specialized treatment facilities, tend to harbor more negative and judgmental perceptions.

This study aims to compare the attitudes of healthcare professionals working in addiction treatment centers with those working in general healthcare settings toward individuals with alcohol and substance use disorders (ASUD). Specifically, it examines how clinical experience influences stigmatizing attitudes. It also investigates whether stigma against individuals with AUD differs from stigma against individuals with SUD.

In Turkey, recent research has increasingly examined the stigmatizing attitudes of healthcare professionals toward individuals with SUD. Kaylı, Özyurt et al., reported that a substantial proportion of healthcare professionals have prejudice that may impede patient engagement in treatment (Kaylı, Özyurt et al., 2020). Similarly, Aksoy and Mercan (2022) reported that healthcare professionals demonstrated more negative attitudes toward individuals with SUD than toward the general public (Aksoy & Mercan, 2022). Işık and Şimşek (2019) emphasized the need for specific training to address these biases among mental health workers, while Atlam and Coşkunol (2019) demonstrated the effectiveness of targeted intervention programs for overcoming stigma (Atlam & Coşkunol, 2019). These findings underline the importance of incorporating national evidence into stigma-reduction strategies in medical education and healthcare practice.

This comparison is expected to yield deeper insight into how distinct clinical environments shape healthcare professionals' attitudes toward different forms of addiction. To date, no study has comprehensively compared the attitudes of professionals working in addiction treatment centers with those in general healthcare settings toward both AUD and SUD. Addressing this gap, our study offers a novel contribution by examining how first-hand clinical exposure to individuals with ASUD affects stigmatizing attitudes. It is expected that the results will help guide initiatives to lessen stigma and encourage the creation of an evidence-based, compassionate, and inclusive approach to addiction treatment.

Methods

Study Design

Our study had a cross-sectional, comparative design to assess the attitudes of healthcare professionals toward individuals with alcohol and substance use disorders (ASUD). The sample comprised two groups: 1) professionals working in addiction treatment centers and 2) professionals employed in general medical settings.

Study Population and Sampling

The study population comprised healthcare professionals employed in addiction treatment centers and general medical settings. Participants were recruited through purposive sampling to ensure representation of both groups. Inclusion criteria were:

Being a practicing healthcare professional.

Having at least one year of work experience in their respective settings.

Providing informed consent to participate.

Exclusion criteria included:

Lack of fluency in the study language.

Personal history of substance use disorder (SUD).

All participants provided informed consent prior to participation, and the study was conducted in compliance with the Institutional Review Board (IRB) guidelines. The final sample consisted of 230 participants, with 96 professionals having addiction treatment experience and 134 without such experience.

Data Collection Tools

Sociodemographic Data Form

This form collected basic demographic and professional information, including participants' age, gender, education level, professional title, workplace, years of experience, and prior experience in addiction treatment settings. These data were used to characterize the sample and conduct group comparisons. To ensure anonymity, no personal identifiers were collected, and the form was used exclusively for research purposes.

Alcohol Use Disorder Stigma Scale

The Alcohol Use Disorder Stigma Scale, developed by Atlam et al. (2023), assesses cognitive, emotional, and behavioral dimensions of stigma toward individuals with alcohol use disorder. It comprises 20 items rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree), with total scores ranging from 20 to 100; higher scores indicate greater levels of stigma. The scale encompasses four subdimensions: incompatibility, social distance, perceived inadequacy, and distrust (Atlam et al., 2023).

Substance Use Disorder Stigma Scale

The Substance Use Disorder Stigma Scale, also developed by Atlam et al. (2023), evaluates stigmatizing attitudes toward individuals with substance use disorders. It consists of 23 items rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree), yielding total scores between 23 and 115, with higher scores reflecting greater stigma. The scale comprises three subdimensions: social distance, perceived negative characteristics, and incompatibility (Atlam et al., 2023).

Attitudes Toward Individuals Using Addictive Substances Scale

The Attitudes Toward Individuals Using Addictive Substances Scale, developed by Kaylı, Yılmaz et al., assesses healthcare professionals' perceptions of individuals who use addictive substances. The scale is composed of Likert-type items rated from 1 (strongly agree) to 5 (strongly disagree), with higher scores indicating more negative attitudes. It comprises five subdimensions: interpersonal interactions, perceived personality traits, social functioning, societal views, and the perceived role of family and social environment (Kaylı, Yılmaz et al., 2020).

Data Collection Procedure

Data were collected via self-administered surveys distributed electronically and in person. Participation was voluntary, and confidentiality was assured. Surveys were collected between October 2024 and January 2025.

Data Analysis

Quantitative data were analyzed using SPSS software version 26. Descriptive statistics (means, standard deviations, frequencies) were calculated for demographic data. Independent sample t-tests were used to compare stigma levels between groups. A p-value of <0.05 was considered statistically significant.

Data Availability

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request. To ensure participant confidentiality, raw data will not be publicly shared.

Ethical Approval

This study was approved by the Lokman Hekim University Scientific Research Ethics Committee on November 29, 2024, with the decision number 2024/268 and code number 2024251.

Results

The demographic characteristics of the healthcare professionals are presented in Table 1. The study included 230 participants, of whom 159 were female (69.1%) and 71 were male (30.9%). Regarding age distribution, 66 participants (28.7%) were aged 30 years or younger, 68 (29.6%) were aged 31–40 years, 42 (18.3%) were aged 41–50 years, and 54 (23.5%) were aged 51 years or older. Most participants had a university degree or higher, and the most common professional titles were doctor and nurse. Of the total sample, 96 participants (41.7%) had experience in addiction treatment, whereas 134 participants (58.3%) had no such experience.

Table 1. Demographics of healthcare professionals

		N	%
Age	<= 30	66	28,7%
	31 - 40	68	29,6%
	41 - 50	42	18,3%
	51+	54	23,5%
	Total	230	100,0%
Sex	Female	159	69,1%
	Male	71	30,9%
	Total	230	100,0%
Education	Middle School	1	0,4%
	High School	18	7,8%
	University	124	53,9%
	Master's degree and above	87	37,8%
	Total	230	100,0%
Professional title	Doctor	76	33,0%
	Nurse	71	30,9%
	Psychologist	29	12,6%
	Social Worker	10	4,3%
	Health Officer	44	19,1%
	Total	230	100,0%
Addiction treatment experience	Yes	96	41,7%
	No	134	58,3%
	Total	230	100,0%

The gender distribution of participants based on their addiction treatment experience is presented in Table 2. Among those with addiction treatment experience, 68.8% (n = 66) were female, while 31.3% (n = 30) were male. Similarly, among participants without addiction treatment experience, 69.4% (n = 93) were female, and 30.6% (n = 41) were male.

According to the correlation analysis (Table 3), which was conducted with the scores of stigmatization and negative attitudes toward individuals who use alcohol, drugs, and addictive substances, a strong positive relationship was found between stigmatization toward individuals who use alcohol and stigmatization toward individuals who use drugs (r= .74, p<.01). A strong positive relationship was also found between stigmatization toward individuals who use alcohol

Table 2. Gender distribution in the field of addiction

			N	%
Addiction treatment experience	Yes	Female	66	68,8%
		Male	30	31,3%
	No	Female	93	69,4%
		Male	41	30,6%

and negative attitudes toward individuals who use addictive substances (r= .59, p<.01). In addition, there was a strong positive correlation between stigmatization toward individuals who use substances and negative attitudes toward individuals who use addictive substances (r= .70, p<.01). These findings show that attitudes toward addiction types are interrelated and that individuals with high stigmatization scores exhibit similar attitudes toward other addiction types.

In Table 4, the independent samples t-test was applied to examine the differences between the stigmatization toward individuals with ASUD and negative attitudes toward individuals with ASUD. A significant difference was found between individuals with experience in addiction treatment ($\bar{X}$= 52.40, SD=17.71) and individuals without experience in addiction treatment ($\bar{X}$= 74.21, SD= 19.06) in terms of stigmatization toward individuals who use alcohol, t(288)= -8.81, p<.001.

In terms of stigmatization toward individuals who use substances, the stigmatization scores of health professionals with experience in addiction treatment ($\bar{X}$= 74.33, SD= 24.25) were found to be significantly lower than those of inexperienced health professionals ($\bar{X}$= 97.05, SD= 18.76) t(288)= -8.01, p<.001.

Considering the negative attitudes toward individuals who use addictive substances, a significant difference was found between health professionals with ($\bar{X}$= 77.38, SD= 20.42) and without ($\bar{X}$= 97.05, SD= 21.06) experience in addiction treatment, t(288)= -7.07, p<.001. As a result, it can be inferred that health professionals who do not have experience in the field of addiction exhibit more negative attitudes toward individuals with ASUD than health professionals with experience do.

Table 3. Descriptive statistics and correlations of variables

	N	$\bar{X}$	SD	1	2	3
1. Alcohol Stigmatization	230	65,11	21,38	-		
2. Substance Stigmatization	230	87,56	23,97	0,74*	-	
3. Addictive Substance Negative Attitude	230	88,84	22,92	0,59*	0,70*	-

*p<0,01

Table 4. Independent groups t-test results of stigmatization according to experience in addiction treatment

Variables	**Experienced**			**Inexperienced**			**t(228)**	**p**	**Cohen's d**
	N	$\bar{X}$	SD	N	$\bar{X}$	SD			
Alcohol Stigmatization	96	52,40	17,71	134	74,21	19,06	-8,81	<0,001	-1,18
Substance Stigmatization	96	74,33	24,25	134	97,05	18,76	-8,01	<0,001	-1,07
Addictive Substance Negative Attitude	96	77,38	20,42	134	97,05	21,06	-7,07	<0,001	-0,95

Discussion

Principal Findings and Previous Studies

The findings of this study indicate that healthcare professionals working in addiction treatment centers exhibit significantly lower levels of stigmatizing attitudes toward individuals with alcohol and substance use disorders (ASUD) compared to those working in general medical settings ($p < 0.01$). These results are consistent with previous research suggesting that clinical exposure and frequent interactions with individuals affected by addiction are associated with more positive attitudes among healthcare providers (Gilchrist et al., 2011; Van Boekel et al., 2013). The study also supports existing evidence that individuals with alcohol use disorder (AUD) are subject to higher levels of social exclusion and discrimination than those with other psychiatric conditions (Kilian et al., 2021; Schomerus et al., 2011).

Furthermore, stigmatizing attitudes among professionals not engaged in addiction services appear to be similarly directed toward both AUD and substance use disorder (SUD). This trend may be influenced by cultural and religious factors specific to Turkey, where alcohol consumption is religiously prohibited in Islam, potentially contributing to elevated levels of stigma toward individuals with AUD (Gürsu & Selçuk, 2021; Yılmaz & Cüceler, 2019). However, it is also important to acknowledge that religious and spiritual frameworks may provide protective mechanisms against stigma. For example, Akça and Kızılgeçit (2024) found that spiritually oriented treatment programs helped individuals with SUD cope more effectively by reducing their sense of social exclusion and internalized stigma. These findings suggest that while religious norms may influence societal attitudes toward alcohol use, they can also serve as a supportive resource in reducing the psychological burden of addiction-related stigma when applied through compassionate frameworks (Akça & Kızılgeçit, 2024).

Healthcare professionals working in addiction treatment centers engage in more frequent and sustained interactions with individuals affected by addiction, which enables them to develop a deeper understanding of the biopsychosocial nature of SUD. Such exposure helps transform stigmatizing beliefs—such as viewing addiction as a moral failing or a lack of willpower—into a recognition of addiction as a complex medical condition (Volkow et al., 2021). The attribution model proposed by Corrigan et al. (2003) suggests that increased knowledge and direct contact with individuals affected by addiction can significantly reduce stigmatizing attitudes by challenging assumptions of personal blame and moral weakness. This conceptual framework supports the idea that familiarity with addiction, particularly in clinical contexts, fosters more compassionate and evidence-based perspectives—findings that are further echoed in the present study (Corrigan et al., 2003).

In contrast, healthcare professionals who do not work in addiction treatment settings often lack sufficient training and clinical exposure related to addiction, which may reinforce stigmatizing perceptions and attitudes. The literature indicates that addiction is still commonly misconstrued as a reflection of moral weakness or personal failure—beliefs that significantly contribute to the persistence of stigma (Barry et al., 2014; Volkow, 2020; Volkow et al., 2021). This limited conceptualization not only impedes the delivery of empathetic and effective care but also perpetuates societal prejudices, further marginalizing individuals with SUD. Moreover, individuals affected by addiction may, particularly during withdrawal or intoxication, engage in behaviors that contravene social norms—such as dishonesty, theft, or aggression—which can complicate efforts to elicit understanding and compassion even from close relations. These behavioral manifestations may help explain why strangers or healthcare professionals sometimes adopt more dismissive or judgmental attitudes toward this population (Volkow, 2020; Volkow et al., 2021).

The widespread societal belief that "willpower alone is sufficient to overcome substance use" continues to shape perceptions toward individuals with SUD. Healthcare professionals are not immune to these assumptions, which may unconsciously influence their clinical attitudes and decisions (Volkow, 2020). Kennedy-Hendricks et al. (2016) reported that stigmatizing views held by healthcare providers can lead to the denial or delay of care for patients with SUD. In emergency department settings, for example, individuals presenting with substance-related issues may not be perceived as legitimate medical cases, and their needs may be viewed as outside the bounds of professional duty. This is particularly evident in the treatment of individuals who inject drugs, who are frequently misjudged as drug-seeking rather than seeking medical assistance—creating substantial barriers to healthcare access (Kennedy-Hendricks et al., 2016).

In a study conducted by Venniro et al. (2018), rats dependent on methamphetamine or heroin were found to prefer social interaction over drug intake. However, when access to social interaction was penalized—for instance, through mild electric shocks—their behavior shifted, and they reverted to drug-seeking (Venniro et al., 2018). This finding suggests that treatment processes which include stigma toward individuals with SUD function as a form of social punishment, thereby reinforcing the cycle of addiction. Beyond broader societal stigma, similarly negative attitudes held by healthcare professionals can further undermine the effectiveness of treatment policies. Kennedy-Hendricks et al. (2017) found that stigma directed at individuals with prescription opioid use disorder significantly reduces public support for policies designed to improve treatment access and outcomes (Kennedy-Hendricks et al., 2017).

While stigma is not the only barrier to accessing effective treatment for individuals with SUD, it is critically important to prevent these individuals from being penalized within the healthcare system due to their condition. Providing effective care and promoting engagement in treatment require healthcare professionals to adopt a compassionate and nonjudgmental approach, particularly when addressing the complex behaviors often linked to addiction and withdrawal.

In this regard, routine training programs that raise awareness and challenge biases among healthcare providers serve as a valuable strategy for reducing stigma. It is essential for clinicians to recognize that stigma not only impairs clinical care but also exacerbates the broader social determinants that sustain addiction.

Strengths and Limitations

The primary strength of this study lies in its comparative design, which evaluates the attitudes of healthcare professionals working in addiction treatment centers alongside those in general healthcare settings. By including participants from diverse clinical backgrounds, the study offers valuable insights into variations in stigmatizing attitudes. The use of validated and reliable assessment tools further strengthens the study's methodological rigor and supports the credibility of its findings. Moreover, the practical implications are substantial, as the results can inform the development of targeted training interventions and policy strategies aimed at reducing stigma in addiction treatment.

Despite its strengths, this study has several limitations that warrant consideration. First, the cross-sectional design precludes the ability to infer causal relationships between clinical experience and stigmatizing attitudes. Second, the use of purposive sampling may limit the generalizability of the results to the broader population of healthcare professionals. Third, the reliance on self-reported measures introduces the risk of social desirability bias, whereby participants may underreport stigmatizing attitudes. Lastly, the study's focus on a single geographic region may constrain the applicability of the findings to other cultural or healthcare contexts.

Future Studies

The findings of this study highlight the critical role of direct interaction with individuals affected by addiction in mitigating stigma among healthcare professionals. Building on these results, we have initiated a follow-up research project, which we aim to complete and submit for publication in the near future. This forthcoming study will involve medical students from two different universities. While students at both institutions will receive the same theoretical coursework on addiction, those at our university will additionally participate in a one-month clinical rotation at an addiction treatment center. Stigma-related attitudes will be assessed using validated scales at both the beginning and end of the program. This design will allow us to evaluate the differential impact of theoretical education alone versus a combined theoretical and experiential learning approach. The ultimate goal is to inform the development of more effective educational interventions to reduce stigma and improve future healthcare professionals' attitudes toward individuals with SUD.

Conclusion

This study underscores the pivotal role of clinical experience and direct patient interaction in mitigating stigma among healthcare professionals toward individuals with alcohol and substance use disorders (ASUD). Professionals working in addiction treatment settings demonstrated significantly lower levels of stigmatizing attitudes compared to their counterparts in general healthcare environments. These findings highlight the importance of experiential learning and targeted training in fostering greater empathy, awareness, and a more compassionate approach to addiction care.

Reducing stigma within the healthcare system is essential for enhancing access to treatment and disrupting the cycle of addiction. Implementing comprehensive training programs that emphasize people-first language and holistic, patient-centered care can equip healthcare professionals to deliver more compassionate and effective services. These findings reinforce the imperative for targeted, evidence-based interventions that address stigma as a central component of public health strategies in addiction treatment.

Positionality Statement

Acknowledging that personal and professional identities can shape scientific inquiry, the authors offer the following disclosure regarding their backgrounds. Three authors identify as male and three as female. All members of the research team are employed in addiction treatment centers and have direct clinical experience working with individuals affected by ASUD. The team comprises professionals from the fields of psychiatry, psychology, and social work. While we recognize that our close engagement with ASUD populations may influence our interpretations of stigma-related phenomena, we have implemented rigorous measures to maintain objectivity and ensure a systematic approach throughout the data collection and analysis process.

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Author contributions

Conception and design: S.C.D., Z.A.; Data acquisition: S.C.D., B.E.M., U.B.A., N.A., Z.S.Ö.; Data interpretation: S.C.D., U.B.A., N.A., Z.S.Ö.; Drafting of the manuscript: S.C.D., B.E.M., U.B.A., N.A., Z.A.; Critical revision of the manuscript: S.C.D., Z.A. All

authors reviewed the results, approved the final version of the manuscript, and agreed to be accountable for all aspects of this study.

Ethical approval

This study was approved by the Lokman Hekim University Scientific Research Ethics Committee (Date: November 29, 2024, Decision/Protocol No: Decision No: 2024/268, Protocol Number : 2024251). Informed consent was obtained from all participants involved in this study.

Data availability statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Conflict of interest

The authors declare that this study was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Generative AI statement

The authors declare that no generative AI or AI-assisted technologies were used in the writing or preparation of this study.

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