

## **Reducing Alcohol and Smoking Dependency through Artificial Intelligence: A Critical Analysis**

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**Abstract:** This study report critically analyses the efficacy of using Artificial Intelligence (AI) to reduce alcohol and smoking addictions. The main goal is to evaluate the effectiveness of AI technology in delivering individualized and focused assistance for addiction cessation. The study used a combined-technique approach, using both qualitative and quantitative data gathering techniques. A structured survey was conducted with 100 participants to collect demographic data, evaluate the extent of alcohol and smoking addiction, and explore the participants' perspectives on AI-driven therapies. Qualitative data was collected via detailed interviews and focus group discussions to provide a nuanced insight into individual experiences and perspectives. The research employs sophisticated AI algorithms to examine the gathered data, detecting patterns and relationships among demographic characteristics, dependence levels, and reactions to AI interventions. The results emphasize the need of customized treatments, using artificial intelligence to adjust treatment strategies according to individual requirements and preferences. It is determined that 95.0% of individuals agree or strongly agree on the significance of AI integration. The Cronbach's Alpha value of 0.871 indicates that the survey questions effectively assess the desired constructs of addiction treatment effectiveness in a reliable manner.

**Keywords:** *Alcohol Dependency; Smoking Dependency; Artificial Intelligence; Respondent*

### **Introduction**

AI and machine learning have been focal points for medical researchers in addressing various healthcare issues. AI-assisted systems are being created to assist physicians in diagnosing and recommending treatments. Google's AI subsidiary Deep mind is working on developing a method for robots to detect symptoms in patients by evaluating data from blood tests, medical records, and information provided by the patient on their smartphone. This is expected to result in early intervention and cost and time savings for healthcare professionals. AI has the ability to assist doctors in diagnosing and treating drug and alcohol abuse more efficiently by providing personalized therapies based on individual risk profiles [1]. By analyzing trends in patients' physiological indicators, including heart rate or liver function, it would be feasible to identify and address instances of hazardous or risky alcohol or drug use at an earlier stage. Early intervention is vital as it

may avoid the progression of serious dependence disorders and lower the occurrence of long-term medical concerns linked to smoking and drinking. Utilizing data-driven methods and shifting from the common practice of using a uniform strategy in treating dependence, which may be ineffective, AI has the potential to transform clinical treatment of drug addiction [2].

The project intends to connect the increasing availability of anonymized patient data with the newest machine learning algorithms to transform the area of 'precision psychiatry'. Unlike physical medical issues with easily detectable indicators like blood in the urine or increased fever, an individual's alcohol or smoking behavior is intrinsically complicated. It is rooted in a sequence of decisions and strengthens 'reward' pathways in the brain, making it more than simply a habit but a fundamental aspect of managing stress and other unpleasant emotional states psychologically [3]. The hesitance of alcohol-dependent patients to seek treatment services and the high recurrence rates in the first years after quitting smoking indicate a lack of significant advancements in support interventions

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for these addictions in recent decades. 'Precision psychiatry' has the potential to provide more personalized and more effective therapies, address healthcare inequities, and lessen the cost on the healthcare system [4].

### Objectives

- To investigate the capacity of artificial intelligence (AI) in developing improved solutions for alcohol and smoking addiction.
- To investigate the capabilities of artificial intelligence in primary prevention and management

Many individuals with alcohol and smoking

addictions may find it difficult to locate adequate assistance. Moreover, the existing therapy technique might be seen as repetitive and inefficient. Hence, it is crucial to eliminate obstacles in order to create a social solution that helps individuals abandon their addictive behavior [3] [8]. The study is significant in the current day as it focuses on scientific research employing qualitative methods to investigate the application of artificial intelligence algorithms for speedy advancements [5]. The rest of the paper is organized as follows: Related work is explained in Section 2, and Section 3 introduces the proposed methodology. Section 4 explains the result and the discussion. Section 5 provides a conclusion.

## I. Related Work

Year and Author	Aim of the Study	Size	Sample Characteristics	Measurement of Addiction	Parameters
Lee et al., (2019) [1]	To predict whether a person with AUD (Alcohol Used Disorders) seeks treatment.	778	Individuals with AUD	In-person clinical screen, the structured clinical interview for DSM (Diagnostic and Statistical Manual of Mental Disorders) disorders, bio markers	Accuracy: 0.86 Kappa: 0.57
Mackey et al. (2019) [3]	Identify general & substance-specific regional effects of the substance in brain cells using gray matter study	2140	Substance dependent individual	Thickness and volume of gray matter in the brain region	$P < .05$ AUC: 0.86 Cohen's D: Negative
Guggenmos et al. (2020) [9]	using an image classifier	119	Participants meeting criteria of alcohol dependence according to ICD-10 and DSM-IV	Composite international diagnostic interview, gray matter density, and increased cerebral fluid	AUC: 0.76 Sensitivity: 0.79 Specificity: 0.74
Marcon et al. (2021) [10]	To comprehend the pattern of high-risk drinking	4840	Medical students	AUDIT questionnaire	Precision = 0.70 Sensitivity = 0.75 Specificity = 0.79
Kinreich et al. (2021) [7]	To predict alcohol remission	1376	Patients with AUD	Neuroticism, sadness, violence, level of education,	Accuracy: 0.86

				and alcohol use may be used to predict the recovery of individuals with alcohol dependence.	
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Addressing these study gaps would enhance the understanding of the efficacy and ethical issues of AI-based therapies in decreasing alcohol and smoking addiction, providing useful insights for future interventions and policy formulation [11].

## II. Methodology

The target demographic was defined as individuals facing alcohol and smoking addictions. Utilized a stratified random sampling method to guarantee a sample that was representative. The sample size was justified based on statistical considerations [12]. Developed AI-driven therapies customized to target alcohol and smoking addiction. This might have required the development of AI systems for personalized interventions. Data gathering techniques were used to obtain both quantitative and qualitative data. Surveys, interviews, and AI-

generated insights were used to gather data on participant experiences, changes in dependence levels, and the perceived success of the AI interventions [14].

A survey was conducted with 100 respondents to identify and examine smoking addiction or alcohol addiction. The analysis followed an interpretivist theoretical framework. Verbal reports were captured, transcribed word for word, and analyzed using inductive theme analysis. This approach was chosen over a retrospective design because it provided real-time data on the choices made, which was considered more trustworthy than data based on participants' recollection. Semi-structured interview approaches were used to allow participants to provide detailed explanations of their comments [13].

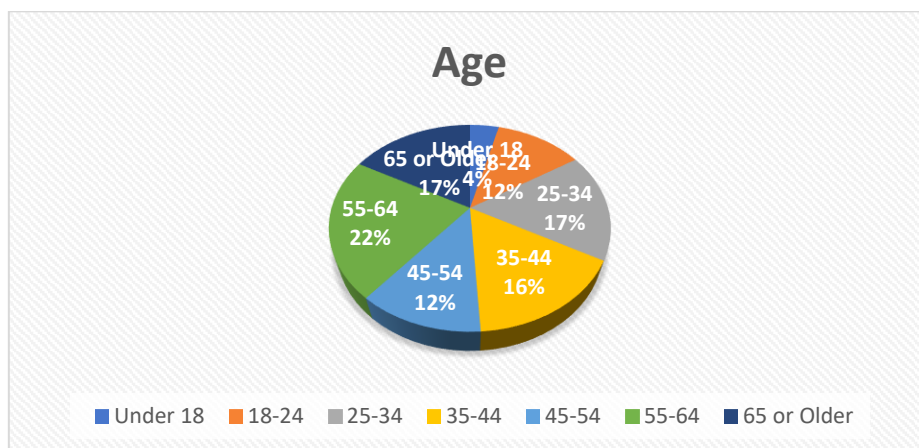
## III. Result And Discussion

### A. Demographic Information

#### 1. Age

**Table 1: Survey based on age factor**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under 18	4	4.0	4.0	4.0
	18-24	12	12.0	12.0	16.0
	25-34	17	17.0	17.0	33.0
	35-44	16	16.0	16.0	49.0
	45-54	12	12.0	12.0	61.0
	55-64	22	22.0	22.0	83.0
	65 or Older	17	17.0	17.0	100.0
	Total	100	100.0	100.0	



**Fig 1: Analysis based on age factor**

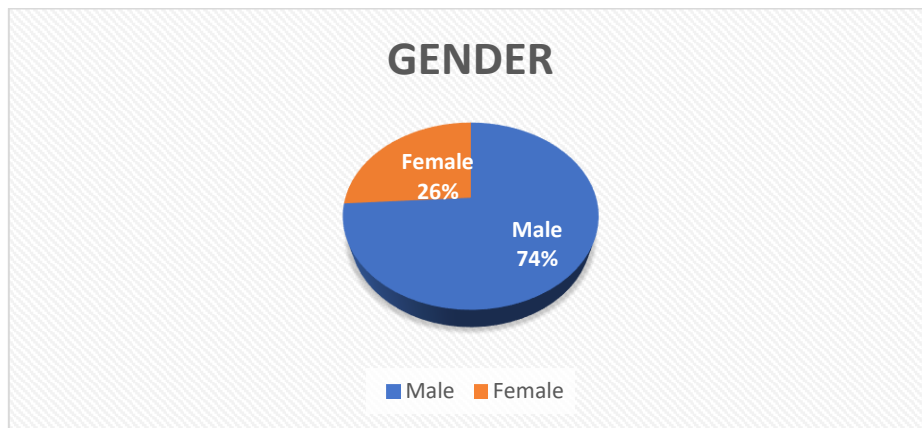
Upon analyzing 100 responses, it was found that 4.0% were under 18 years old, 12.0% were aged 18-24, 17.0% were aged 25-34, 16.0% were aged 35-

44, 12.0% were aged 45-54, 22.0% were aged 55-64, and 17.0% were 65 years old or more as shown in figure 1.

## 2. Gender

**Table 2:** Survey based on gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	74	74.0	74.0	74.0
	Female	26	26.0	26.0	100.0
	Total	100	100.0	100.0	

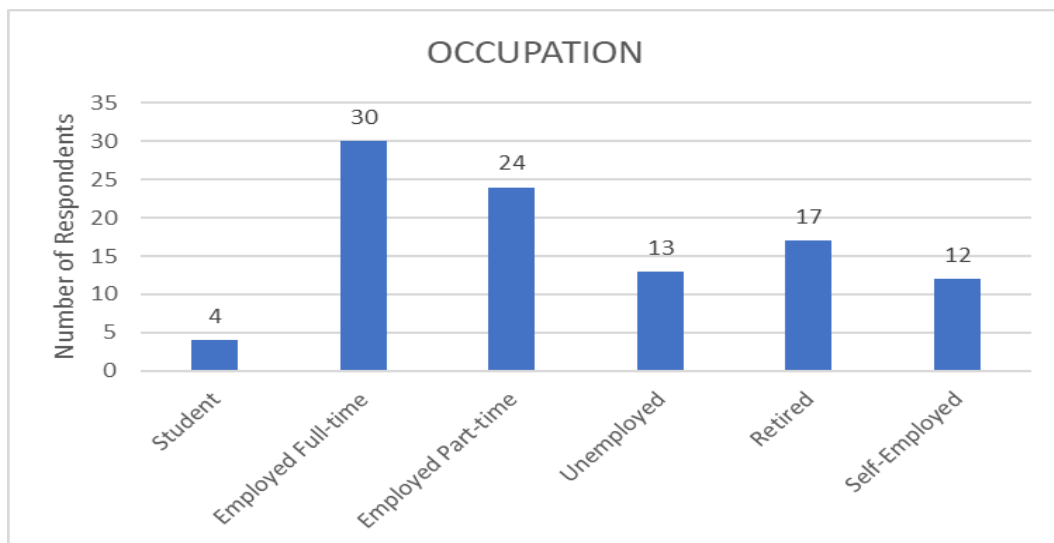


**Fig 2:** Analysis based on Gender

It was concluded that, out of the total 100 respondents analyzed, 74.0% identified as male,

while 26.0% identified as female, as seen in figure 2.

## 3. Occupation



**Fig 3:** Analysis based on occupation

It was determined that among the 100 respondents examined, the distribution of vocations was as outlined: 4.0% of the individuals were students, 30.0% were employed full-time, 24.0% were

working part-time, 13.0% were unemployed, 17.0% were retired, and 12.0% were self-employed, as seen in figure 3.

## B. Health Information

### 1. Current Status

**Table 3:** Survey of health information based on current status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Smoker	30	30.0	30.0	30.0
	Drinker	22	22.0	22.0	52.0
	Both	48	48.0	48.0	100.0
	Total	100	100.0	100.0	

It was concluded that, out of the total 100 respondents analyzed, the distribution based on current status regarding smoking and drinking habits

was as follows: In table 3, 30.0% were identified as smokers, 22.0% as drinkers, and 48.0% as both smokers and drinkers.

### 2. Health Insurance Status

**Table 4:** Survey of health information based on insurance status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Insured	27	27.0	27.0	27.0
	Uninsured	43	43.0	43.0	70.0
	Prefer Not To Say	30	30.0	30.0	100.0
	Total	100	100.0	100.0	

It was determined that out of the 100 respondents surveyed, the distribution depending on health insurance status was as follows: 27.0% of the

individuals had insurance, 43.0% did not have insurance, and 30.0% decided not to disclose their health insurance status.

### 3. Health Status

**Table 5:** Survey of health information based on health status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Excellent	19	19.0	19.0	19.0
	Very Good	31	31.0	31.0	50.0
	Good	11	11.0	11.0	61.0
	Fair	19	19.0	19.0	80.0
	Poor	20	20.0	20.0	100.0
	Total	100	100.0	100.0	

It was determined that out of the 100 respondents examined, the distribution according to self-reported health state was as follows: 19.0% of people rated

their health as outstanding, 31.0% as very good, 11.0% as good, 19.0% as fair, and 20.0% as bad.

#### 4. Frequency of Consumption

**Table 6:** Survey based on frequency of consumption

**How frequently do you consume?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	51	51.0	51.0	51.0
	Several Times A Day	49	49.0	49.0	100.0
	Total	100	100.0	100.0	

It was determined that out of the 100 respondents surveyed, the distribution based on the frequency of intake was as follows: 51.0% of individuals reported drinking everyday, while 49.0% stated they ate multiple times a day.

#### C. General Awareness

##### 1. Familiarity with the Use of Artificial Intelligence in Addressing Alcohol and Smoking Dependency

Among the 100 respondents evaluated, the distribution based on knowledge with the application of artificial intelligence in treating alcohol and smoking addictions was as follows. 70.0% indicated a high level of familiarity, whilst 30.0% indicated a moderate level of familiarity.

**Table 7:** Survey of AI in addressing alcohol and smoking dependency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Familiar	70	70.0	70.0	70.0
	Somewhat Familiar	30	30.0	30.0	100.0
	Total	100	100.0	100.0	

#### 2. Assessment of the Efficacy of Artificial Intelligence in Aiding Persons in Reducing Their Dependence on Alcohol and Smoking

**Table 8:** Survey of AI in aiding persons in reducing their dependence on alcohol and smoking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Effective	37	37.0	37.0	37.0
	Somewhat Effective	24	24.0	24.0	61.0
	Neutral	22	22.0	22.0	83.0
	Somewhat Ineffective	3	3.0	3.0	86.0
	Very Ineffective	14	14.0	14.0	100.0
	Total	100	100.0	100.0	

Opinions on the effectiveness of artificial intelligence in helping people eliminate alcohol and smoking addictions varied among respondents. 37.0% found it very effective, while 24.0% found it somewhat effective. 22.0% of people were indifferent, 3.0% considered it somewhat ineffective, and 14.0% found it extremely ineffective.

##### 3. Willingness to Use AI-Driven Solutions for Alcohol or Tobacco Addiction Mitigation

Analyzed data from 100 respondents showed that 84.0% were willing to use AI-driven solutions for managing alcohol or tobacco addiction, with an extra 16.0% indicating potential openness ("Probably Yes").

**Table 9:** Survey of AI-driven solutions for alcohol or tobacco addiction mitigation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	84	84.0	84.0	84.0
	Probably Yes	16	16.0	16.0	100.0
	Total	100	100.0	100.0	

**4. Advantages of Using Artificial Intelligence to Decrease Alcohol and Smoking Addiction**

All participants unanimously acknowledged the benefits of using artificial intelligence to reduce

alcohol and smoking addiction. More precisely, 51.0% mentioned enhanced efficacy, while 49.0% recognized the possibility of tailored solutions.

**Table 10:** Survey of AI to decrease alcohol and smoking addiction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Improved Effectiveness	51	51.0	51.0	51.0
	Personalized Interventions	49	49.0	49.0	100.0
	Total	100	100.0	100.0	

**5. Sources of Information on AI-Driven Therapies for Addiction Reduction**

Participants mainly relied on social media (51.0%) and healthcare experts (41.0%) for information

about AI-driven therapy for reducing addiction. News and media outlets accounted for 5.0% while friends and family accounted for 3.0% as less often mentioned sources.

**Table 11:** Survey of AI-driven therapies for addiction reduction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Social Media	51	51.0	51.0	51.0
	Healthcare Professionals	41	41.0	41.0	92.0
	News and Media Outlets	5	5.0	5.0	97.0
	Friends and Family	3	3.0	3.0	100.0
	Total	100	100.0	100.0	

**6. Interest in Learning About AI's Role in Decreasing Alcohol and Smoking Dependence**

All respondents (100.0%) showed a strong interest in knowing more about artificial intelligence and its potential impact on reducing alcohol and smoking addiction.

It was stated that across the whole group of participants, different AI technologies were acknowledged for their potential in dealing with addiction. Machine learning and natural language processing were recognized as important technologies, with virtual reality and chatbots being seen as beneficial for addiction therapy. Furthermore, 16.0% of respondents cited other AI technologies.

**7. AI Technology for Addiction**

## 8. Factors Impacting AI Efficacy

**Table 12:** Factors impacting AI efficacy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Personalization Of Interventions	28	28.0	28.0	28.0
	Integration with Traditional Therapies	22	22.0	22.0	50.0
	Accessibility of AI Solutions	11	11.0	11.0	61.0
	Ethical Considerations	23	23.0	23.0	84.0
	Other	16	16.0	16.0	100.0
	Total	100	100.0	100.0	

Various variables among all the respondents influenced the effectiveness of AI in addressing addiction. 28.0% of the respondents highlighted the customization of treatments, while 22.0% mentioned the need to integrate with established therapies. The accessibility of AI solutions was highlighted at 11.0% and ethical issues at 23.0% were considered significant factors affecting the effectiveness of AI. In addition, 16.0% of respondents mentioned other causes as shown in table 12.

## 9. Crucial Attributes in AI Intervention

Important characteristics related to AI interventions for treating addiction were recognized across all responders. Personalization accounted for 20.0% and real-time monitoring for 26.0% of the highlighted qualities. Moreover, the attention was on privacy and security measures (24.0%), along with the importance of a user-friendly interface (16.0%). In addition, an additional 14.0% of respondents mentioned extra characteristics.

**Table 13:** Crucial attributes in AI intervention

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Personalization	20	20.0	20.0	20.0
	Real -Time Monitoring	26	26.0	26.0	46.0
	Privacy and Security Measures	24	24.0	24.0	70.0
	User Friendly Interface	16	16.0	16.0	86.0
	Other	14	14.0	14.0	100.0
	Total	100	100.0	100.0	

## 10. Obstacles in AI for Reducing Addiction

**Table 14:** Obstacles in AI for reducing addiction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ethical Concerns	21	21.0	21.0	21.0
	Privacy Issues	27	27.0	27.0	48.0
	Lack of Human Interaction	22	22.0	22.0	70.0
	Technological Limitations	18	18.0	18.0	88.0
	Other	12	12.0	12.0	100.0
	Total	100	100.0	100.0	

It was determined that hurdles in employing AI to reduce addiction were noted among all respondents. Ethical concerns were expressed by 21.0% of participants, while 27.0% highlighted privacy issues

as obstacles. Furthermore, 22.0% identified the absence of human connection as a barrier, while 18.0% cited technology restrictions. Additionally, 12.0% of respondents cited additional barriers.



### 11. Reliance on Information Sources

Various sources of information were relied upon by all responders to acquire knowledge. 31.0% of participants rely on Scientific Journals as their main source, whereas 28.0% turn to News Articles. 15.0%

of participants contact Healthcare Professionals, while 18.0% depend on Personal Experiences. Furthermore, 8.0% of respondents depend on sources categorized as "Other."

**Table 15:** Reliance on information sources

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Scientific Journals	31	31.0	31.0	31.0
	News Articles	28	28.0	28.0	59.0
	Healthcare Professionals	15	15.0	15.0	74.0
	Personal Experiences	18	18.0	18.0	92.0
	Other	8	8.0	8.0	100.0
	Total	100	100.0	100.0	

### D. Reducing Alcohol and Smoking Dependency through AI

#### 1. Perception of Using Artificial Intelligence for Reducing Alcohol and Smoking Dependency

The analysis indicated that the majority of respondents strongly supported the idea of using

artificial intelligence to address alcohol and smoking addiction. 75.0% of participants showed strong agreement with this statement, while an additional 18.0% expressed agreement. Only a small percentage of respondents strongly disagreed (3.0%) or were indifferent (4.0%).

**Table 16:** Using artificial intelligence for reducing alcohol and smoking dependency is a promising approach.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	3.0	3.0	3.0
	Neutral	4	4.0	4.0	7.0
	Agree	18	18.0	18.0	25.0
	Strongly Agree	75	75.0	75.0	100.0
	Total	100	100.0	100.0	

#### 2. Perception of the Effectiveness of Artificial Intelligence in Assisting Individuals to Quit Alcohol and Smoking

A variety of viewpoints existed on the efficiency of artificial intelligence in assisting persons to stop

drinking and smoking among all the respondents. 4.0% of participants strongly disagreed, 12.0% disagreed, and 20.0% were indifferent on this issue. However, 46.0% of respondents agreed with the statement, and 18.0% strongly agreed.

**Table 17:** Artificial intelligence can effectively help individuals in their journey to quit alcohol and smoking.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	4.0	4.0	4.0
	Disagree	12	12.0	12.0	16.0
	Neutral	20	20.0	20.0	36.0
	Agree	46	46.0	46.0	82.0
	Strongly Agree	18	18.0	18.0	100.0
	Total	100	100.0	100.0	

### 3. Awareness of Artificial Intelligence Use in Addressing Addiction

The understanding of artificial intelligence (AI) in managing addiction varied among participants. 7.0% of respondents highly disagreed, 14.0% disagreed, 27.0% were neutral, 41.0% agreed, and 11.0% strongly agreed with being well-informed on AI's involvement in addiction treatment.

**Table 18:** Well-informed about the use of artificial intelligence in addressing addiction.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	7	7.0	7.0	7.0
	Disagree	14	14.0	14.0	21.0
	Neutral	27	27.0	27.0	48.0
	Agree	41	41.0	41.0	89.0
	Strongly Agree	11	11.0	11.0	100.0
	Total	100	100.0	100.0	

### 4. Personal Experience with AI-Based Tools for Addiction Reduction

A study found that 4.0% of individuals strongly disagreed or disagreed with having personal experience with AI-based solutions for addiction rehabilitation, while 16.0% remained neutral. Yet, a significant majority (32.0% agreed and 48.0% strongly agreed) either used or knew someone who utilized such technologies.

**Table 19:** Personal Experience with AI-Based Tools for Addiction Reduction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	1.0	1.0	1.0
	Disagree	3	3.0	3.0	4.0
	Neutral	16	16.0	16.0	20.0
	Agree	32	32.0	32.0	52.0
	Strongly Agree	48	48.0	48.0	100.0
	Total	100	100.0	100.0	

### 5. Belief in AI's Ability to Address Challenges

Participants had diverse ideas about AI's capacity to tackle addiction issues. 6.0% of individuals strongly disagreed or disagreed, while 5.0% remained indifferent. Yet, a significant majority (25.0% agreed and 64.0% strongly agreed) believed in the effectiveness of AI.

**Table 20:** Belief in AI's Ability to Address Challenges

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	2.0	2.0	2.0
	Disagree	4	4.0	4.0	6.0
	Neutral	5	5.0	5.0	11.0
	Agree	25	25.0	25.0	36.0
	Strongly Agree	64	64.0	64.0	100.0
	Total	100	100.0	100.0	

### 6. Support for Personalized Support from AI Interventions

Participants displayed varied viewpoints on AI's ability to offer individualized assistance for addiction cessation. 5.0% of people strongly disagreed or disagreed, while 12.0% were indifferent. However, a significant majority (27.0% agreed and 56.0% strongly agreed) had faith in AI's capacity to provide individualized assistance.

**Table 21:** Result for personalized support from AI interventions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	2.0	2.0	2.0
	Disagree	3	3.0	3.0	5.0
	Neutral	12	12.0	12.0	17.0
	Agree	27	27.0	27.0	44.0
	Strongly Agree	56	56.0	56.0	100.0
	Total	100	100.0	100.0	

**7. Belief in the Efficacy of AI in Alcohol and Smoking Cessation Programs**

Participants expressed confidence in the effectiveness of AI in alcohol and smoking cessation

programs. 4.0% of individuals strongly disagreed or disagreed, while 6.0% were indifferent. However, a significant majority supported the efficacy of AI, with 17.0% agreeing and 73.0% strongly agreeing.

**Table 22:** Utilising AI technology may greatly enhance the efficacy of alcohol and smoking cessation programmes.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	2.0	2.0	2.0
	Disagree	2	2.0	2.0	4.0
	Neutral	6	6.0	6.0	10.0
	Agree	17	17.0	17.0	27.0
	Strongly Agree	73	73.0	73.0	100.0
	Total	100	100.0	100.0	

**8. Concerns about Privacy Issues with AI Therapies**

Participants expressed concerns about potential privacy issues associated with AI therapies for addiction. Only a small percentage (3.0%) strongly

disagreed or disagreed, while 10.0% held a neutral stance. However, a majority expressed concern about privacy, with 32.0% agreeing and 57.0% strongly agreeing.

**Table 23:** Apprehensive about the possible privacy concerns associated with AI therapies for alcohol and smoking addiction.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	1.0	1.0	1.0
	Neutral	10	10.0	10.0	11.0
	Agree	32	32.0	32.0	43.0
	Strongly Agree	57	57.0	57.0	100.0
	Total	100	100.0	100.0	

**9. Importance of Ethical Considerations in AI Therapies**

Participants prioritized ethical issues in AI therapy for addiction. 3.0% of people strongly disagreed or

disagreed, while 5.0% were indifferent. Nevertheless, a significant majority (32.0% agreed and 60.0% strongly agreed) emphasized ethical issues.

**Table 24:** Importance of Ethical Considerations in AI Therapies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	1.0	1.0	1.0
	Disagree	2	2.0	2.0	3.0
	Neutral	5	5.0	5.0	8.0
	Agree	32	32.0	32.0	40.0
	Strongly Agree	60	60.0	60.0	100.0
	Total		100	100.0	100.0

**10. Willingness to Use AI Techniques for Alcohol Dependence**

Participants displayed varying levels of readiness to utilize AI methods for alcohol dependency. 3.0% of

respondents strongly disagreed or disagreed, while 2.0% were indifferent. However, a significant majority (19.0% agreed and 78.0% strongly agreed) were open to using AI technology.

**Table 25:** contemplate using AI techniques to mitigate alcohol dependence.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	1.0	1.0	1.0
	Neutral	2	2.0	2.0	3.0
	Agree	19	19.0	19.0	22.0
	Strongly Agree	78	78.0	78.0	100.0
	Total		100	100.0	100.0

**11. Willingness to Use AI Solutions for Smoking Dependence**

Participants showed a strong inclination towards using AI solutions for smoking cessation. 5.0%

maintained a neutral position, while 30.0% agreed and 65.0% strongly agreed to adopt AI solutions.

**Table 25:** Willingness to Use AI Solutions for Smoking Dependence

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	5	5.0	5.0	5.0
	Agree	30	30.0	30.0	35.0
	Strongly Agree	65	65.0	65.0	100.0
	Total		100	100.0	100.0

**12. Concerns about Ethical Ramifications of AI Use**

Participants raised ethical concerns regarding the use of AI to address addiction. 3.0% of people strongly disagreed or disagreed, while 10.0% were

indifferent. However, a majority expressed concerns over ethical implications, with 33.0% agreeing and 54.0% strongly agreeing.

**Table 26:** Concerns about Ethical Ramifications of AI Use

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	1.0	1.0	1.0
	Disagree	2	2.0	2.0	3.0
	Neutral	10	10.0	10.0	13.0
	Agree	33	33.0	33.0	46.0
	Strongly Agree	54	54.0	54.0	100.0
	Total		100	100.0	100.0

**13. Ethical Considerations Linked to AI-Driven Addiction Therapies**

Participants emphasized the importance of ethical considerations in AI-driven addiction therapies.

Only a small percentage held a neutral stance, while a significant majority agreed and strongly agreed on prioritizing ethical considerations.

**Table 27:** Ethical Considerations Linked to AI-Driven Addiction Therapies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	9	9.0	9.0	9.0
	Agree	34	34.0	34.0	43.0
	Strongly Agree	57	57.0	57.0	100.0
	Total	100	100.0	100.0	

**14. Significance of Privacy Concerns with AI in Addiction Treatment**

Participants prioritized the significance of privacy concerns when using AI in addiction treatment.

While a small percentage disagreed (2.0%), 4.0% held a neutral stance. Nevertheless, a majority (31.0% agreed and 63.0% strongly agreed) prioritized privacy concerns.

**Table 28:** Significance of Privacy Concerns with AI in Addiction Treatment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	1.0	1.0	1.0
	Disagree	1	1.0	1.0	2.0
	Neutral	4	4.0	4.0	6.0
	Agree	31	31.0	31.0	37.0
	Strongly Agree	63	63.0	63.0	100.0
	Total	100	100.0	100.0	

**15. Concerns about Over-Reliance on AI in Addiction Treatment**

Participants expressed concerns about the potential danger of over-reliance on AI in addiction treatment. Although only a small percentage strongly disagreed

or disagreed, 7.0% held a neutral stance. However, a significant majority shared concerns about over-reliance, with 24.0% agreeing and 62.0% strongly agreeing.

**Table 29:** Concerns about Over-Reliance on AI in Addiction Treatment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	4.0	4.0	4.0
	Disagree	3	3.0	3.0	7.0
	Neutral	7	7.0	7.0	14.0
	Agree	24	24.0	24.0	38.0
	Strongly Agree	62	62.0	62.0	100.0
	Total	100	100.0	100.0	

**16. Effectiveness of Budget Allocation for AI in Addiction Programs**

Participants exhibited confidence in the effectiveness of budget allocation for AI in addiction

programs. Only a small percentage (7.0%) disagreed or held a neutral stance, while 93.0% agreed or strongly agreed with the effectiveness of budget allocation.

**Table 30:** Effectiveness of budget allocation for AI in addiction programs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	3.0	3.0	3.0
	Neutral	4	4.0	4.0	7.0
	Agree	18	18.0	18.0	25.0
	Strongly Agree	75	75.0	75.0	100.0
	Total	100	100.0	100.0	

**17. Efficacy of Domains Supported by Welfare Programs in Addiction Mitigation**

Participants identified domains supported by welfare programs as efficacious in addiction

mitigation. Only a small percentage (6.0%) disagreed or held a neutral stance, while 94.0% agreed or strongly agreed with the efficacy of supported domains.

**Table 31:** Efficacy of Domains Supported by Welfare Programs in Addiction Mitigation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	2.0	2.0	2.0
	Neutral	4	4.0	4.0	6.0
	Agree	10	10.0	10.0	16.0
	Strongly Agree	84	84.0	84.0	100.0
	Total	100	100.0	100.0	

**18. Hopefulness about Future Potential of AI in Addiction Treatment**

Participants expressed hopefulness about the future potential of AI in addiction treatment. Only a small

percentage (10.0%) disagreed or held a neutral stance, while 90.0% agreed or strongly agreed with the future potential of AI

**Table 32:** Hopefulness about Future Potential of AI in Addiction Treatment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	4.0	4.0	4.0
	Disagree	1	1.0	1.0	5.0
	Neutral	5	5.0	5.0	10.0
	Agree	15	15.0	15.0	25.0
	Strongly Agree	75	75.0	75.0	100.0
	Total	100	100.0	100.0	

**19. Value of Allocating Resources for AI Technologies in Addiction**

**Table 33:** Value of Allocating Resources for AI Technologies in Addiction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	4.0	4.0	4.0
	Disagree	3	3.0	3.0	7.0
	Neutral	5	5.0	5.0	12.0
	Agree	22	22.0	22.0	34.0
	Strongly Agree	66	66.0	66.0	100.0
	Total	100	100.0	100.0	

Participants recognized the value of allocating resources for AI technologies in addiction treatment.

Only a small percentage disagreed or held a neutral stance, while the majority agreed or strongly agreed with the value of resource allocation.

## 20. Importance of Government Endorsement for AI in Public Health Projects

**Table 34:** Importance of government endorsement for AI in Public Health Projects

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	4.0	4.0	4.0
	Disagree	4	4.0	4.0	8.0
	Neutral	7	7.0	7.0	15.0
	Agree	26	26.0	26.0	41.0
	Strongly Agree	59	59.0	59.0	100.0
	Total	100	100.0	100.0	

It was concluded that participants emphasize the importance of government endorsement for AI in public health projects. While only a small percentage (8.0%) disagrees or holds a neutral stance, 92.0% agree or strongly agree with the importance of government endorsement.

## 21. User-Friendliness of AI-Driven Addiction Solutions

Participants emphasized the importance of user-friendliness in AI-driven addiction solutions. While only a small percentage disagreed or held a neutral stance, 92.0% agreed or strongly agreed with the importance of user-friendliness.

**Table 35:** User-Friendliness of AI-Driven Addiction Solutions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	4.0	4.0	4.0
	Neutral	4	4.0	4.0	8.0
	Agree	17	17.0	17.0	25.0
	Strongly Agree	75	75.0	75.0	100.0
	Total	100	100.0	100.0	

## 22. Accessibility as a Critical Factor in AI-Driven Addiction Treatment Efficacy

It was concluded that 2.0% strongly disagreed, 4.0% disagreed, 5.0% held a neutral stance, 25.0% agreed,

and 64.0% strongly agreed with the statement that ensuring universal efficacy of AI-driven addiction treatment programs relied on the critical factor of accessibility.

**Table 36:** Accessibility as a critical factor in AI-driven addiction treatment efficacy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	2.0	2.0	2.0
	Disagree	4	4.0	4.0	6.0
	Neutral	5	5.0	5.0	11.0
	Agree	25	25.0	25.0	36.0
	Strongly Agree	64	64.0	64.0	100.0
	Total	100	100.0	100.0	

### 23. Accessibility Enhancement Through AI Integration in Healthcare

Participants emphasized the importance of AI integration in healthcare for enhancing accessibility.

There was only a small percentage (5.0%) that disagreed or held a neutral stance, while 95.0% agreed or strongly agreed with the importance of AI integration.

**Table 37:** Accessibility enhancement through AI integration in healthcare

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	2.0	2.0	2.0
	Disagree	3	3.0	3.0	5.0
	Neutral	12	12.0	12.0	17.0
	Agree	27	27.0	27.0	44.0
	Strongly Agree	56	56.0	56.0	100.0
Total		100	100.0	100.0	

### E. Reliability

During the research on addiction treatment effectiveness through AI-driven interventions, the reliability statistics indicated a high level of internal consistency among the survey items. The Cronbach's Alpha coefficient of 0.871 indicated that

the items used in the survey reliably measured the intended constructs related to addiction treatment efficacy. The reliability enhanced the credibility and trustworthiness of our research findings, ensuring that the data collected accurately reflected the participants' perspectives on the topic.

**Table 38:** Result of reliability.

Reliability Statistics	
Cronbach's Alpha	N of Items
<b>0.871</b>	<b>23</b>

## IV. Conclusion

The research paper thoroughly examined how Artificial Intelligence (AI) can be used to tackle the issue of reducing alcohol and smoking dependency. The research involved a wide range of 100 participants, offering valuable insights into how AI-based interventions can help address these dependencies. This study highlights the significant impact of AI on public health initiatives. The results highlight the importance of personalized treatments, utilizing artificial intelligence to tailor treatment strategies based on individual needs and preferences. 95.0% of individuals acknowledge the importance of AI integration. The survey questions effectively assess the desired constructs of addiction treatment effectiveness in a reliable manner, as indicated by the Cronbach's Alpha value of 0.871.

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