

Substance Use and the Role of Families. Results of a Cross-Country Study in Pakistan, Kazakhstan, and Ukraine

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BACKGROUND: In many countries families have rarely been involved in addressing treatment and interventions for family members with substance use disorders (SUDs). The aims of this study were to measure the influence of substance use on users' family members and to evaluate what and if any interventions were conducted by and with family members in the three countries of Kazakhstan, Pakistan, and Ukraine. **METHODS:** A convenience sample approach was used to identify the involvement of families in the treatment and recovery process of a subject using substances and to provide country-specific data from Pakistan, Kazakhstan, and Ukraine. **RESULTS:** The survey yielded 2174 respondents from the three countries, including 1099 responses from

relatives of a subject who used or uses substances and 1075 from subjects who use or used psychoactive substances. In total, 47% of the relatives indicated that they did not receive treatment interventions and 87% believed that treatment could be an effective option to address the use of substances. **CONCLUSIONS:** A significant majority of the relatives in Pakistan, Kazakhstan, and Ukraine did not receive any therapeutic or other support while living with a subject with an SUD. Unsurprisingly, family members often regarded the best way to treat SUDs as being to isolate the subject. However, in all three countries most of the subjects with experience of substance use identified the family as the main factor that could prevent them from using substances.

Keywords | Role of Family – Substance Use – Substance Use Disorder – Interventions – Family Programmes

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1 INTRODUCTION

According to the United Nations Office on Drugs and Crime (UNODC) World Drug Report 2020, drug use increased far more rapidly among developing countries over the 2000–2018 period than in developed countries. Adolescents and young adults account for the largest share of those using drugs, while young people are also the most vulnerable to the effects of drugs since they are the most common/frequent users and their brains are still in the developing stage. (UNODC, 2020).

There is an inextricable link between substance use disorders (SUDs) and the functioning of the family: the negative impact of SUD on families has been noted; however, the impact of the family also makes it possible to achieve significant improvements in the prevention, treatment, and rehabilitation of people with an SUD.

When a family member has an SUD, the response of family members will differ significantly because of the individual nature of family relationships and the family's modus operandi and structure, as well as the range of views on the issue of substance use (Lander et al., 2013). It can create and provide a supportive environment and play a protective role in the recovery process. Alternatively, it can also become responsible for triggering the worsening of the disorder and might even contribute to a relapse (Lander et al., 2013).

The impact of having a family member with an SUD can be significant for other family members: they often experience depression, anxiety, stress, and feelings of guilt, regret, or sadness when compared to other families. And yet they do not receive any psychosocial, psychotherapeutic, or treatment and recovery advice and support (Ólafsdóttir, 2020).

Efforts to engage young adults with substance use disorders in treatment often focus on the individual and do not consider the role that the family can play in the recovery process (Bagley et al., 2021).

There is a lack of prevention and treatment provided for families in many countries. This is not helped by issues surrounding the problem of substance use, such as stigma, local beliefs, lack of professional engagement, and the dominance of culturally focused attitudes (Kumpfer et al., 2022).

To assess the degree of involvement of families in the prevention, treatment, and rehabilitation of people with an SUD, using a single methodology, patients and family members in Ukraine, Kazakhstan, and Pakistan were interviewed. This article presents data from the cross-country study on family involvement across the continuum of SUD services.

In all three countries family SUD interventions are not very common. There is no approved programme on how to involve the family in the treatment and rehabilitation of people with SUDs and family engagement is not part of the clinical diagnostic and treatment protocols in Kazakhstan. Thus, family members' therapeutic involvement is not widespread and is only offered on demand from co-dependents.

Around 60% of drug users in Pakistan mentioned having faced problems in their relations with their spouses, parents, and other family members (UNODC, 2006). Not all government and private institutions include family therapy along with rehabilitation of drug addicts (Masood et al., 2014).

Family counselling is not widely available and is offered by only 19% of the state addiction treatment clinics and 6% of the non-state addiction treatment clinics in Ukraine (Gluzman et al., 2018).

2 METHODS

The International Society of Substance Use Prevention and Treatment Professionals (ISSUP) is an international non-government membership organisation focused on drug demand reduction—substance use prevention, treatment, and recovery support. A National Chapter is a unique and multi-disciplinary organisation undertaking the work and role of the ISSUP at a national level. At the beginning of 2021, representatives from three National Chapters, ISSUP Pakistan, ISSUP Kazakhstan, and ISSUP Ukraine, created a working group that undertook the joint research project “*Substance Use and the Role of Families*”. The aims were: to provide new data from countries in the region; to measure the influence of substance use on the family and/or family members; to identify family needs; to obtain information about family attitudes to the treatment of substance use disorders, and to evaluate if and what types of interventions are conducted with families and/or family members in each country.

Two online surveys were created by the ISSUP team and data collection was undertaken in the three countries. The surveys collected quantitative and qualitative data. The first survey (Survey 1) focused on the family members of subjects who were using psychoactive substances and the second survey (Survey 2) on subjects with a substance use disorder themselves. During Survey 1, conducted among family members, the types of relationships in the family were identified, attitudes to substance use and to treatment and the recovery process were evaluated, and a review to identify if any interventions were being conducted with families in their country was included.

Survey 2 was performed among subjects who use or used psychoactive substances. It evaluated their attitudes to substance use and to their treatment process, and aimed to address the relationships in the family and the role of the family in the treatment and recovery support processes. The questionnaires were anonymous and confidential. Survey 1 and Survey 2 were translated into the Ukrainian, Urdu, Kazakh, and Russian languages.

This article presents the quantitative comparative results of the eight-month research process undertaken by ISSUP Pakistan, ISSUP Kazakhstan, and ISSUP Ukraine. Through this study the working group sought to identify: the type of programmes/services available in the country for both service users and families; the level of involvement of family members, and

the country's needs to address the role of families of those substance users in their family.

ISSUP Pakistan collected 292 responses for Survey 1 and 285 for Survey 2; ISSUP Kazakhstan received 543 responses for Survey 1 and 534 for Survey 2; ISSUP Ukraine received 264 for Survey 1 and 257 for Survey 2. The surveys were disseminated through different types of treatment and rehabilitation organisations in Pakistan, Kazakhstan, and Ukraine and were completed online. The questionnaires were anonymous and all the information provided was handled in a confidential way. The information provided was handled in accordance with the terms of the European Union General Data Protection Regulation (GDPR). The process involved collecting: general information about the country; gender-relevant information; the "type" of family; specific information related to substance use and relationships between the family members, and the role of the family in the recovery process.

The organisation, tabulation, and analysis of data were performed by using TIBCO Statistica 13.4. Outcome variables were identified and included: country, gender, type of family; the predominant type of relationship between family members; the important people in the life of the subject; the impact of substance use on personality and the family; the impact of treatment and family or family members on the substance use issue; and the feelings of guilt, regret, or sadness of the substance user.

Pairs of answers to multiple-choice questions were treated as categorical data and analysed using Pearson's chi-square (χ^2) test to examine the difference between groups. The level of significance adopted was $p < 0.05$.

The study was approved by the ethics committee of the Republican Scientific and Practical Centre of Mental Health (No. 2, 10.02.2021), Poonch Medical College Rawalakot/CMH Rawalakot (No. 243, 01.02.2021), and the Institute of Psychiatry of Taras Shevchenko National University of Kyiv, Ukraine (No. 1, 08.02.2021).

3 RESULTS

3.1 Survey of family members

In total 1098 responses from family members of people who use substances were collected (Table 1). In Ukraine and Kazakhstan, the survey was mostly filled by females (80.6%; 72%), while in Pakistan the share of female respondents was significantly less at 45.6% ($\chi^2 = 109.206$, $df = 4$, $p < 0.001$). The largest percentages of respondents in Ukraine and Kazakhstan were biological parents (64.6%; 39.4%), while in Pakistan they were siblings of persons who use substances (35.3%). Also in Pakistan, there was a relatively high share of respondents from the extended family (19.2%). In Kazakhstan and Pakistan the survey was also filled in by spouses and friends (22.8%).

The largest percentages of family members in all three countries characterised family relationships as 'warm and

supportive' (43%), 19.9% as 'distant' ('every member has their own life and interests'), and 19.2% as 'closed' ('feelings are not expressed openly'). As for differences between countries, the respondents from Kazakhstan tend to describe their family relationships relatively more often as 'warm and supportive' (25.2%), those from Ukraine more often choose 'unpredictable' and 'closed' (5%; 5.2%), and those from Pakistan speak of 'distant' and 'closed' types of relationships (6.8%; 5.4%; $\chi^2 = 91.3056$, $df = 10$, $p < 0.001$).

An association between perceived family relationships and gender was found. Thus, women tend to characterise family relationships more often as 'warm and supportive' or 'unpredictable' (29.6%; 9.9%), men as 'distant' or 'closed' (29.6%; 9.9%; 6.5%; 6.3%; $\chi^2 = 260.921$, $df = 10$, $p < 0.001$).

Regarding family roles and perceived family relationships, parents tend to characterise the family relationships more often as 'warm and supportive', 'unpredictable', or 'closed' (21.6%; 6.5%; 8.7%), while siblings more often see them as 'distant' or 'closed' (5.4%; 6.3%). Extended family members and grandparents tend to perceive family relationships more often as 'distant' (3.1%; 0.7%) and spouses and friends as 'unpredictable' (1.2%; $\chi^2 = 172.572$, $df = 25$, $p < 0.001$).

The largest percentages of respondents see their role in the family as protectors of persons who use substances (41.4%) or as someone who takes on responsibilities (28.4%). As for differences between countries, the respondents from Kazakhstan tend to see themselves as protectors relatively more often (24.8%), while those from Ukraine more often opt for taking on responsibilities and gaining attention (7.8%; 1.3%) and those from Pakistan taking on responsibilities and being peacemakers (9.8%; 5.2%; $\chi^2 = 135.107$, $df = 12$, $p < 0.001$).

Females tend to choose more often the role of the protector of persons who use substances (29%), while men more often see themselves as someone who takes on responsibilities and is achievement-oriented (9%) or a peacemaker (5%) or someone who does not make any demands and remains unnoticed (3.3%; $\chi^2 = 150.133$, $df = 12$, $p < 0.001$).

Parents more often choose the role of a protector (21.3%), while siblings more often see themselves as peacemakers or someone who does not to make any demands and remains unnoticed (5.3%; 2.4%); spouses and friends relatively more often seek attention (0.8%; $\chi^2 = 197.170$, $df = 30$, $p < 0.001$).

The largest segment of the survey participants from all three countries consider substance use a family problem (40.7%) or a problem of society (31.3%). Comparing between countries, the respondents from Kazakhstan tend consider substance use a family problem or individual problem relatively more often (22.3%; 11.6%), those from Ukraine a family problem (12.5%), and those from Pakistan a societal problem (9.2%; $\chi^2 = 345.622$, $df = 10$, $p < 0.001$).

Most respondents from all countries believe that treatment can be an effective option to stop the use of psychoactive substances (87.6%). The most popular SUD treatment option

Table 1 | Replies for Survey 1, received from the family members of the subject who use substances

Gender	Male Female Prefer not to say
Describe the type of family you are in	Biological parents Adoptive parents Foster parents Step parent (s) Grandparents Single parent - mother Single parent - father Same gender parents Siblings as parents Other Other relatives
How are you related to family member who use psychoactive substances	Parents Sister/brother Grandparents Aunt/uncle/cousins Prefer not to say Other
How do you characterize type of relationship between family members	strong emotional involvement, warm and supportive relationship unpredictability and lack of safety feelings are not expressed openly every member has its own life and interests Prefer not to say other_ please clarify
What's your predominant role in the family	Protects subject from the negative consequences of their substance use Takes on responsibilities and is achievement oriented Peace maker, try to distract family members from the painful reality Does not to make any demands and remains unnoticed Acts out negative feelings in order to gain some attention Prefer not to say Other (please specify)
Does substance use negatively impact on you and family unit?	Yes No Other Prefer not to say
Do you consider substance use disorders as an	Individual problem Family problem Problem of the society/community Prefer not to say Other (please specify)
Do you believe that treatment can be effective option to stop use psychoactive substances	Yes No Prefer not to say

Total sample (N = 1099)	Kazakhstan (n = 543)	Pakistan (n = 292)	Ukraine (n = 264)
N (%)	N (%)	N (%)	N (%)
336 (30.60)	152 (27.99)	143 (48.97)	41 (15.59)
736 (67.03)	391 (72.01)	133 (45.55)	212 (80.61)
26 (2.37)	0 (0.00)	16 (5.48)	10 (3.80)
730 (66.48)	435 (80.11)	102 (34.93)	193 (73.38)
13 (1.18)	2 (0.37)	9 (3.08)	2 (0.76)
15 (1.37)	6 (1.10)	9 (3.08)	0 (0.00)
18 (1.64)	4 (0.74)	2 (0.68)	12 (4.56)
21 (1.91)	11 (2.03)	8 (2.74)	2 (0.76)
78 (7.10)	37 (6.81)	24 (8.22)	17 (6.46)
20 (1.82)	6 (1.10)	12 (4.11)	2 (0.76)
50 (4.55)	1 (0.18)	49 (16.78)	0 (0.00)
59 (5.37)	38 (7.00)	21 (7.19)	0 (0.00)
7 (0.64)	2 (0.37)	5 (1.71)	0 (0.00)
30 (2.73)	1 (0.18)	29 (9.93)	0 (0.00)
470 (42.81)	214 (39.41)	86 (29.45)	170 (64.64)
263 (23.95)	130 (23.94)	103 (35.27)	30 (11.41)
27 (2.46)	18 (3.31)	5 (1.71)	4 (1.52)
108 (9.84)	50 (9.21)	56 (19.18)	2 (0.76)
71 (6.47)	7 (1.29)	9 (3.08)	55 (20.91)
159 (14.48)	124 (22.84)	33 (11.30)	2 (0.76)
472 (42.99)	277 (51.01)	111 (38.01)	84 (31.94)
153 (13.93)	60 (11.05)	38 (13.01)	55 (20.91)
211 (19.22)	94 (17.31)	59 (20.21)	58 (22.05)
218 (19.85)	97 (17.86)	75 (25.68)	46 (17.49)
16 (1.46)	0 (0.00)	0 (0.00)	16 (6.08)
28 (2.55)	15 (2.76)	9 (3.08)	4 (1.52)
454 (41.35)	272 (50.09)	83 (28.42)	99 (37.64)
312 (28.42)	118 (21.73)	108 (36.99)	86 (32.70)
155 (14.12)	75 (13.81)	57 (19.52)	23 (8.75)
83 (7.56)	44 (8.10)	22 (7.53)	17 (6.46)
47 (4.28)	25 (4.60)	1 (0.34)	14 (5.32)
24 (2.19)	0 (0.00)	1 (0.34)	23 (8.75)
23 (2.09)	9 (1.66)	13 (4.45)	1 (0.38)
850 (77.41)	434 (79.93)	228 (78.08)	188 (71.48)
163 (14.85)	109 (20.07)	37 (12.67)	17 (6.46)
1 (0.09)	0 (0.00)	26 (8.90)	0 (0.00)
84 (7.65)	0 (0.00)	1 (0.34)	58 (22.05)
179 (16.30)	127 (23.39)	23 (7.88)	29 (11.03)
447 (40.71)	245 (45.12)	65 (22.26)	137 (52.09)
344 (31.33)	160 (29.47)	101 (34.59)	83 (31.43)
14 (1.28)	0 (0.00)	1 (0.34)	13 (4.94)
114 (10.38)	11 (2.03)	102 (34.93)	1 (0.38)
962 (87.61)	443 (81.58)	288 (98.63)	231 (87.83)
122 (11.11)	100 (18.42)	4 (1.37)	18 (6.84)
14 (1.27)	0 (0.00)	0 (0.00)	14 (5.32)

What is the best way to treat substance use disorders	isolate person using substances in the healthcare facility imprison person using substances outpatient treatment person using substances continue treatment staying at home Prefer not to say other -please specify
Do you feel “shame” - a feeling of guilt, regret, or sadness that you have because you know that your family member uses substances	Yes No Prefer not to say
Does the functioning of your family changed after it`s member started to use psychoactive substances	No change Functioning worsens Family stabilizes a healthier life style Family unites and improve functioning Prefer not to say Other-please specify
Do you or any other family member who are not using substances receive any treatment interventions?	Individual therapy Group therapy Self-help group Family therapy Counselling sessions No Prefer not to say Other-please specify
What is your contribution into the recovery process of the subject?	Household care Control of the treatment Establishing a consistent daily schedule Forming social relationships with people who do not use drugs Involvement into joint activities Creating long-term goals Support positive initiatives Involves in religious, community work, or social activism Prefer not to say Other-please specify
What are the biggest challenges you are currently facing in your family life with respect to member, who use substances?	Fears about substance use and relapse Continuous restricting, controlling behaviours Inability to trust Increased alertness and extreme sensitiveness to the surrounding Impatience about changes No challenges Prefer not to say Other
What role do the family have to help family members with suds recover?	None- keep out of it Some – please explain what Prefer not to say

Total sample (N = 1099)	Kazakhstan (n = 543)	Pakistan (n = 292)	Ukraine (n = 264)
N (%)	N (%)	N (%)	N (%)
760 (69.22)	361 (66.48)	210 (71.92)	189 (71.86)
24 (2.19)	19 (3.50)	3 (1.03)	9 (3.42)
134 (12.20)	82 (15.10)	23 (7.88)	29 (11.03)
120 (10.93)	68 (12.52)	36 (12.33)	16 (6.08)
19 (1.73)	1 (0.18)	0 (0.00)	18 (6.84)
41 (3.73)	19 (3.50)	20 (6.85)	2 (0.76)
870 (79.23)	423 (77.90)	247 (84.59)	200 (76.05)
193 (17.58)	118 (21.73)	23 (7.88)	52 (19.77)
35 (3.19)	2 (0.37)	22 (7.53)	11 (4.18)
130 (11.84)	90 (16.57)	26 (8.90)	14 (5.32)
613 (55.83)	282 (51.93)	176 (60.27)	155 (58.94)
171 (15.57)	98 (18.05)	42 (14.38)	31 (11.79)
127 (11.57)	59 (10.87)	18 (6.16)	50 (19.01)
14 (1.28)	0 (0.00)	2 (0.68)	12 (4.56)
43 (3.92)	14 (2.58)	28 (9.59)	1 (0.38)
193 (17.58)	119 (21.92)	40 (13.70)	34 (12.93)
125 (11.38)	37 (6.81)	10 (3.42)	78 (29.66)
84 (7.65)	20 (3.68)	14 (4.79)	50 (19.01)
61 (5.56)	47 (8.66)	10 (3.42)	4 (1.52)
105 (9.56)	61 (11.23)	23 (7.88)	21 (7.98)
516 (46.99)	256 (47.15)	195 (66.78)	65 (24.71)
11 (1.00)	0 (0.00)	0 (0.00)	11 (4.18)
3 (0.27)	3 (0.55)	0 (0.00)	0 (0.00)
197 (17.94)	113 (20.81)	64 (21.92)	20 (7.60)
241 (21.95)	143 (26.34)	53 (18.15)	45 (17.11)
49 (4.46)	20 (3.68)	28 (9.59)	1 (0.38)
118 (10.75)	68 (12.52)	26 (8.90)	24 (9.13)
96 (8.74)	44 (8.10)	35 (11.99)	17 (6.46)
56 (5.10)	21 (3.87)	23 (7.88)	12 (4.56)
221 (20.13)	102 (18.78)	31 (10.62)	88 (33.46)
59 (5.37)	13 (2.39)	35 (11.99)	23 (8.75)
26 (2.37)	1 (0.18)	2 (0.68)	23 (8.75)
35 (3.19)	18 (3.31)	7 (2.40)	10 (3.80)
535 (48.72)	277 (51.01)	116 (39.73)	142 (53.99)
107 (9.74)	55 (10.13)	38 (13.01)	14 (5.32)
174 (15.85)	95 (17.50)	37 (12.67)	42 (15.97)
114 (10.38)	38 (7.00)	47 (16.10)	29 (11.03)
52 (4.74)	33 (6.08)	4 (1.37)	15 (5.70)
80 (7.29)	37 (6.81)	35 (11.99)	8 (3.04)
13 (1.18)	0 (0.00)	0 (0.00)	13 (4.94)
23 (2.09)	8 (1.47)	15 (5.14)	0 (0.00)
286 (26.05)	184 (33.89)	55 (18.84)	47 (17.87)
769 (70.04)	359 (66.11)	211 (72.26)	199 (75.67)
43 (3.92)	0 (0.00)	26 (8.90)	17 (6.46)

in all the countries that were surveyed is the isolation of a person who uses substances in a healthcare facility (69.2%). The participants from Ukraine choose the options 'isolation in a healthcare facility' and 'imprisonment' relatively more often (17.2%; 0.8%) compared to the other countries that were surveyed, those from Pakistan 'isolation in a healthcare facility' and 'treatment at home' (19.1%; 3.3%), and those from Kazakhstan 'outpatient treatment' and 'treatment at home' (7.5%; 6.1%; $\chi^2 = 86.9398$, $df = 10$, $p < 0.001$).

Most of the respondents in all three countries feel shame, guilt, regret, or sadness because a family member uses substances (79.2%) with a relatively higher share of people from Pakistan feeling that way (22.5%; $\chi^2 = 58.4197$, $df = 6$, $p < 0.001$).

A majority of the survey participants believe that the functioning of their families worsened after those close to them started to use psychoactive substances (55.8%). Comparing across the countries, relatively more participants in Kazakhstan believe that the functioning of the family did not change or stabilised (8.2%; 8.9%), and relatively more participants from Ukraine believe that the functioning of the family improved after those close to them started to use psychoactive substances (4.6%; $\chi^2 = 135.756$, $df = 12$, $p < 0.001$).

Nearly half of the survey participants had not received any interventions (47%). Individual therapy (17.6%) and group therapy (11.4%) were the most frequent interventions received by the respondents. The participants from Ukraine received group therapy and attended self-help groups relatively more often in comparison to the other countries that were surveyed (7.1%; 4.6%) and the participants from Kazakhstan individual therapy, family therapy, and counselling (10.8%; 4.3%; 5.6%; $\chi^2 = 286.281$, $df = 14$, $p < 0.001$).

Those who received some kind of intervention believed more often that substance use is a family or individual problem (24.4%; 9.3%), and those who did not receive any interventions had a greater tendency to believe that substance use is a problem of society (15.9%; $\chi^2 = 632.463$, $df = 10$, $p < 0.001$). Receiving an intervention was linked with believing in treatment effectiveness (46.5%; $\chi^2 = 621.071$, $df = 6$, $p < 0.001$), but also with feeling more shame, guilt, regret, or sadness (41.9%; $\chi^2 = 233.872$, $df = 6$, $p < 0.001$). Those who received some kind of intervention believed more often that isolation in a healthcare facility is the best treatment option (38.1%), while those who did not receive any interventions believed relatively more often in the effectiveness of outpatient and home treatment (6.3%; 6.1%; $\chi^2 = 443.727$, $df = 10$, $p < 0.001$). Those who received interventions had a relatively greater tendency to believe that the family does not play any role in SUD recovery (14.1%), while those who did not receive any interventions believed that the family has some role (33.8%; $\chi^2 = 224.350$, $df = 4$, $p < 0.001$).

Regarding the contribution to the recovery process, those who received any interventions supported positive initiatives more often, fostered social relationships with people who do not use drugs, and controlled treatment (11.3%; 6.7%; 12.6%). Those who did not receive any interventions were relatively more often involved in household care, joint activities, and the formu-

lation of long-term goals (9.4%; 4.7%; 3%; $\chi^2 = 335.271$, $df = 20$, $p < 0.001$). In general, control of one's treatment (21.9%) and support for positive initiatives (20.1%) were the most popular forms of contribution to the recovery process. Comparing the countries that were surveyed, the participants from Ukraine chose support for positive initiatives and involvement in religious/community life relatively more often (8%; 2.1%), those from Kazakhstan household care, control of one's treatment, and fostering social relationships with people who do not use drugs (10.3%; 13%; 6.2%; $\chi^2 = 212.560$, $df = 20$, $p < 0.001$).

The biggest challenge in family life for the participants from all three countries is fear about substance use and relapse (48.7%). As for differences between the countries, the participants from Kazakhstan relatively more often expressed as challenges fears about substance use and relapse, an inability to trust, continuous controlling behaviours, and impatience about changes (25.2%; 8.6%; 5%; 3%; $\chi^2 = 119.339$, $df = 14$, $p < 0.001$). Perceived challenges regarding receiving any interventions or not also differed. Thus, those who did not receive any intervention more often see increased alertness and extreme sensitiveness to the surroundings or continuous controlling behaviours as challenges or perceive no challenges (4.6%; 4.7%; 2.2%). Those who received any interventions more often identify as challenges fears about substance use and relapse and inability to trust (28.6%; 8.8%; $\chi^2 = 659.687$, $df = 14$, $p < 0.001$).

3.2 Survey of people who use substances

A total of 1075 replies was received from subjects who use or have used psychoactive substances (Table 2). The gender split of the subjects surveyed revealed that 77% of the respondents were male and 23% female. More than half of the respondents (58% of the total) were living with their biological parents.

Almost half of the survey participants characterise their family relationships as warm and supportive (47.9%). As for differences between countries, the respondents from Kazakhstan tend to describe their family relationships as warm and supportive relatively more often (27.9%), those from Ukraine more often choose unpredictable and distant (6.3%; 2.6%), and those from Pakistan distant and closed types of relationships (6.5%; 7.2%; $\chi^2 = 480.147$, $df = 15$, $p < 0.001$). This tendency is consistent with the one found in the survey of family members.

There were statistically significant associations between the perceived types of relationships and perceived family support in the treatment/recovery process. Those subjects from Ukraine, Kazakhstan, and Pakistan who had characterised their relationships with their family as warm and supportive agreed that their family had supported them in the treatment and recovery process (43.6%; $\chi^2 = 118.932$, $df = 15$, $p < 0.001$). Those participants who believed that their family did not support them in the treatment and recovery process perceived family relationships as distant more often in Ukraine (8.6%) and distant or warm in Kazakhstan (3%; 4.3%). We have not identified a statistically significant association for these questions from the replies received from Pakistan.

The majority of the subjects in Pakistan, Kazakhstan, and Ukraine agreed that substance use has a negative impact on them and their family unit (78.1%), causes feelings of shame (74.7%), and worsens the functioning of the family (56.6%) and that treatment can be an effective option to stop using psychoactive substances in the future (85.4%).

Most of the people who use substances prefer inpatient treatment in a healthcare facility (52.5%). Comparing between countries, the respondents from Kazakhstan chose isolation in a healthcare facility relatively more often (26.5%), those from Pakistan isolation in a healthcare facility and treatment at home (17.2%; 7.2%), and those from Ukraine outpatient treatment and imprisonment (9.2%; 1.3%; $\chi^2 = 492.840$, $df = 15$, $p > 0.001$).

Almost two-thirds of the participants received treatment interventions (65.4%), with medical treatment prevailing (32.5%). As for differences between the countries, the participants from Ukraine received individual therapy, counselling, and self-help interventions relatively more often (3.4%; 3.4%; 1.9%), while the participants from Kazakhstan tended to family interventions (2.8%; $\chi^2 = 753.360$, $df = 21$, $p < 0.001$); 60% of the respondents from Pakistan did not receive any treatment interventions at all.

Those who did not receive treatment interventions tended to believe that treatment is ineffective (4.2%; $\chi^2 = 193.476$, $df = 14$, $p < 0.001$) and felt that they were not supported by their families (7.7%; $\chi^2 = 103.758$, $df = 21$, $p < 0.001$) and that their family provokes substance use or plays no role in it (4.9%; $\chi^2 = 351.925$, $df = 35$, $p < 0.001$).

Those who received family therapy interventions were more likely to prefer treatment at home (0.9%; $\chi^2 = 244.130$, $df = 35$, $p < 0.001$) and believed more often that substance use had a positive influence on the functioning of the family (1.4%; $\chi^2 = 467.236$, $df = 42$, $p < 0.001$).

Males tended to perceive treatment as effective relatively more often than females did (66%; $\chi^2 = 177.531$, $df = 4$, $p < 0.001$) and chose isolation in a healthcare facility as the most effective treatment option (42.4%), while women tended to choose outpatient treatment, treatment at home, and imprisonment relatively more often (4.1%; 5.8%; 1%; $\chi^2 = 191.895$, $df = 10$, $p < 0.001$). Females received medical treatment, individual therapy, and self-help and counselling sessions comparatively more often (8%; 2.8%; 2%), while males took part in group therapy or did not receive treatment at all (8%; 28%; $\chi^2 = 282.587$, $df = 14$, $p < 0.001$).

Most of the participants (81%) felt that their family supported them in the treatment/recovery process, while in Ukraine there were relatively more respondents who did not feel that way (5.4%; $\chi^2 = 124.488$, $df = 9$, $p < 0.001$).

In all three countries, most of the subjects identified the family as the main factor that prevents them from using substances and which can best support treatment and recovery (51%). As for differences between the countries, the participants from

Pakistan chose friends, social networks, and the community as protective factors relatively more often (4.9%; 2.7%; 3.7%), those from Ukraine therapeutic communities and work (3.3%; 3.2%), and those from Kazakhstan the family (31.3%; $\chi^2 = 355.889$, $df = 24$, $p < 0.001$).

4 DISCUSSION

The families predominantly viewed substance use disorders as a family problem and both families and substance users agreed that SUD significantly impaired their family's functioning. In contrast, substance users viewed families as a powerful resource in supporting their recovery.

The under-representation of family therapy was consistent across all three countries, with only 5% reported on average as specialised family therapy programmes are still very rare. Relatives who received therapeutic interventions identified substance use disorder more as a problem of the family and individual and less as one of society. The existing scientific literature shows that family therapy changes perceptions about SUD (Tambling et al., 2021), makes a significant contribution to recovery (Ghafri et al., 2020) and perceived challenges, improves health outcomes for all family members, and results in better addiction treatment outcomes (Ventura et al., 2017).

While the provision of treatment intervention differed between the countries, Ukraine led, with 91% of the users receiving treatment, while Pakistan lagged behind, with 40% according to the substance users. Most of the subjects with SUDs in all three countries viewed inpatient treatment and isolation in a healthcare facility as an effective intervention. This may be the result of the fact that in all three countries it is the most widely available treatment option, as community mental health is not well developed (EMCDDA, 2014; EMCDDA, 2020; UNODC, 2017). On the other hand, this could be because people with a higher level of self-stigmatisation may have a lowered sense of self-efficacy and heightened fear of being stigmatised and therefore retreat into more protected settings such as residential treatment (Luoma et al., 2014). According to our study, the families and substance users experienced a high level of stigmatisation from their communities and most families across the three countries that were surveyed viewed isolating a person with a substance use disorder in a medical institution as the best treatment option. While shame was reported in similarly high proportions among both families and substance users in Kazakhstan (> 75%) and Pakistan (> 80%), Ukrainian substance users notably reported a lower feeling of shame (63%) compared to their families (76%). This highlights an interesting area for further research. Overall, these responses can be associated with stigma and negative attitudes to subjects with substance use disorders.

Available studies on shame and stigma show that therapeutic interventions could be effective instruments to reduce these feelings, but future research should be more focused on people's psychological relationship to shame (Luoma et al., 2008; Livingston et al., 2011; Luoma et al., 2015).

Table 2 | Replies for Survey 2, received from subjects who use psychoactive substances or were diagnosed with a substance use disorder

Gender	Male Female Prefer not to say
Describe the type of family you are in	Biological parents Adoptive parents Foster parents Step parent (s) Grandparents Single parent - mother Single parent - father Same gender parents Siblings as parents Other relatives Other Prefer not to say
How do you characterize type of relationship between family members	Strong emotional involvement, warm and supportive relationship Unpredictability and lack of safety Feelings are not expressed openly Every member has its own life and interests Prefer not to say Other
Does substance use negatively impact on you and family unit?	Yes No Prefer not to say
Do you believe that treatment can be effective option to stop use psychoactive substances	Yes No Prefer not to say
What is the best way you consider to treat substance use disorders	Isolate in the healthcare facility Imprison Outpatient treatment Continue treatment staying at home Prefer not to say Other
Do you feel "shame" - a feeling of guilt, regret, or sadness that you use/used substances	Yes No Prefer not to say
Has the functioning of your family changed after you started to use psychoactive substances	No change Functioning worsens Family stabilizes a healthier life style Family unites and improve functioning Prefer not to say Other-please specify

Total sample (N = 1075)	Kazakhstan (n = 533)	Pakistan (n = 285)	Ukraine (n = 257)
N (%)	N (%)	N (%)	N (%)
826 (76.84)	401 (75.23)	252 (88.42)	173 (67.84)
245 (22.79)	132 (24.77)	33 (11.58)	80 (31.37)
4 (0.37)	0 (0.00)	0 (0.00)	2 (0.78)
631 (58.7)	347 (65.1)	125 (43.86)	159 (62.35)
12 (1.12)	3 (0.56)	7 (2.46)	2 (0.78)
9 (0.84)	4 (0.75)	5 (1.75)	0 (0.00)
12 (1.12)	2 (0.38)	1 (0.35)	9 (3.53)
28 (2.60)	17 (3.19)	8 (2.81)	3 (1.18)
164 (15.26)	88 (16.51)	27 (9.47)	49 (19.22)
59 (5.49)	11 (2.06)	44 (15.44)	4 (1.57)
27 (2.51)	10 (1.88)	17 (5.96)	0 (0.00)
57 (5.30)	6 (1.13)	45 (15.79)	6 (2.35)
47 (4.37)	43 (8.07)	0 (0.00)	4 (1.57)
3 (0.28)	2 (0.38)	0 (0.00)	1 (0.39)
26 (2.42)	0 (0.00)	6 (2.11)	18 (7.06)
515 (47.91)	300 (56.29)	107 (37.54)	108 (42.35)
91 (8.47)	39 (7.32)	24 (8.42)	28 (10.98)
207 (19.26)	82 (15.38)	77 (27.02)	48 (18.82)
235 (21.86)	97 (18.2)	70 (24.56)	68 (26.67)
5 (0.47)	0 (0.00)	0 (0.00)	5 (0.47)
22 (2.05)	15 (2.81)	7 (2.46)	0 (0.00)
839 (78.05)	424 (79.55)	223 (78.25)	192 (75.29)
198 (18.42)	109 (20.45)	28 (9.82)	61 (23.92)
38 (3.53)	0 (0.00)	34 (11.93)	4 (0.78)
918 (85.40)	433 (81.24)	283 (99.30)	202 (79.22)
151 (14.05)	100 (18.76)	2 (0.70)	49 (19.22)
6 (0.56)	0 (0.00)	0 (0.00)	6 (1.57)
564 (52.47)	285 (53.47)	185 (64.91)	94 (36.86)
38 (3.53)	19 (3.56)	5 (1.75)	14 (5.49)
212 (19.72)	86 (16.14)	27 (9.47)	99 (38.82)
177 (16.47)	77 (14.45)	58 (20.35)	42 (16.47)
6 (0.56)	1 (0.19)	0 (0.00)	5 (1.18)
78 (7.26)	65 (12.2)	10 (3.51)	3 (1.18)
803 (74.70)	410 (76.92)	232 (81.40)	161 (63.14)
244 (22.70)	123 (23.08)	28 (9.82)	93 (36.47)
28 (2.60)	0 (0.00)	25 (8.77)	1 (0.39)
175 (16.28)	106 (19.89)	22 (7.72)	47 (18.43)
608 (56.56)	283 (53.1)	178 (62.46)	147 (57.65)
156 (14.51)	85 (15.95)	42 (14.74)	29 (11.37)
85 (7.91)	35 (6.57)	28 (9.82)	22 (8.63)
6 (0.56)	0 (0.00)	1 (0.35)	5 (1.18)
45 (4.19)	24 (4.5)	14 (4.91)	7 (2.74)

Do you receive any treatment interventions?	Medical treatment Individual therapy Group therapy Self-help group Family therapy Counselling sessions No Prefer not to say
Does the family support you in the treatment/recovery process?	Yes No Other Prefer not to say
What role do you think the family or family members could play to help you with your substance use issue?	Support treatment and recovery Provoking substance use None Other Prefer not to say
What prevents you from using substances?	Friends Family Work Community Social networks Therapeutic groups Other Prefer not to say

The provision of all types of medical and social assistance to those with a substance use disorder is undoubtedly an important part of the treatment process for each patient. However, without the participation of family members and their support, it is difficult to imagine the complete process of treatment and the recovery support required for patients. Contrary to the opinion that only medical doctors can help a patient, our research indicates that the subjects with a substance use disorder themselves highly appreciated the significant influence of relatives and family on their successful recovery.

Limitations

This study has limitations associated with online surveys which were translated into the local languages of the respective countries, inconsistencies in some of the questions and answers provided because of specific cultural features in certain countries, and unequal distribution of the family respondents, with over-representation of females in Ukraine and Kazakhstan. We have observed a certain fall-off in the responses to some questions, which could be caused by fatigue induced by the long questionnaire or sensitivity to some of the questions. We

included “other” and “prefer not to say” as answer options and calculated all the answer percentages using the denominators of responses to each question.

5 CONCLUSIONS

The family plays a very important role in the treatment and recovery of those with substance use disorders. Only 8% of the families in Kazakhstan, 3% in Pakistan, and 2% in Ukraine received family therapy, for example on how to live with a substance-using subject or how to best support their recovery process. This is in line with the 69% of family members across the three countries that were surveyed viewing isolation of the substance user as the best way to treat SUDs. However, across the three countries, between 75% and 85% of the subjects with a substance use disorder received family support in their treatment and recovery process. Similarly, 63%–76% of all subjects described the family’s main role as preventing them from using substances and supporting their treatment and recovery. In additional, stigmatisation and a feeling of shame among

Total sample (N = 1075)	Kazakhstan (n = 533)	Pakistan (n = 285)	Ukraine (n = 257)
N (%)	N (%)	N (%)	N (%)
349 (32.47)	182 (34.15)	65 (22.81)	102 (40.00)
92 (8.56)	42 (7.88)	13 (4.56)	37 (14.51)
106 (9.86)	68 (12.76)	5 (1.75)	33 (12.94)
38 (3.53)	10 (1.88)	7 (2.46)	21 (8.24)
38 (3.53)	30 (5.63)	6 (2.11)	2 (0.78)
80 (7.44)	25 (4.69)	18 (6.32)	37 (14.51)
368 (34.23)	176 (33.02)	170 (59.65)	22 (8.63)
4 (0.37)	0 (0.00)	1 (0.35)	3 (0.39)
871 (81.02)	448 (84.05)	233 (81.75)	190 (74.51)
169 (15.72)	83 (15.57)	28 (9.82)	58 (22.75)
2 (0.19)	2 (0.38)	0 (0.00)	0 (0.00)
33 (3.07)	0 (0.00)	24 (8.42)	9 (2.75)
770 (71.63)	406 (76.17)	180 (63.16)	184 (72.16)
108 (10.05)	30 (5.63)	61 (21.40)	17 (6.67)
163 (15.16)	83 (15.57)	29 (10.18)	51 (20.00)
30 (2.79)	13 (2.44)	15 (5.26)	2 (0.78)
4 (0.37)	1 (0.19)	0 (0.00)	3 (0.39)
90 (8.37)	26 (4.88)	53 (18.60)	11 (4.31)
548 (50.98)	336 (63.04)	90 (31.58)	122 (47.84)
99 (9.21)	43 (8.07)	22 (7.72)	34 (13.33)
55 (5.12)	8 (1.5)	40 (14.04)	7 (2.75)
40 (3.72)	5 (0.94)	29 (10.18)	6 (2.35)
84 (7.81)	36 (6.75)	13 (4.56)	35 (13.73)
126 (11.72)	79 (14.82)	34 (11.93)	13 (5.10)
33 (3.07)	0 (0.00)	4 (1.40)	27 (10.59)

both families and users are prevalent in a significant majority of the responses.

Any type of family interventions for relatives influenced their perceptions of the substance use problem, such as increasing their belief in the efficacy of the treatment, while also increasing their feeling of shame.

Authors' contributions: JL and OM designed the study and proposed study design. NF, IP, YY, SC, KA, RM, NC, SA, SAA, and SIA performed the statistical analysis and participated in the data interpretation and preparation of the manuscript. OM designed the initial form of the manuscript, conducted the literature review, wrote the methodology section, and conducted the summary of related work. JL supervised the data analysis and participated in the preparation of the manuscript. All authors contributed to the development of the article and approved the final version of the manuscript.

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