N E ANE HE I
AND B ANCE E
A C CA
A A

!"#$%&'(&)*+,-&./0-&12-&324)-&)332-&.#*5$66*#
.7#87$&9%,:$#6,;<&=>/**+&*5&27#6,%?

.#6%;$8&";&;/$&2@=A2&
BCBD&=>,$%;,5,>&=<EF*6,7E G&)#*E&O";"&;*&.*+,><

!"#"$%#%& '#()#"$%#*+%,%&"-".(&/#"$%#*-+".0.*-&"#1.22#3%#-32%#"(4

- !"#$%&'"()&#*+%&$,-(&./+%0,*&+.(%"-,*"1(*+(#2'#*,.$"(2#"(&.($"%*&/&"1(%"3&#*"%"1(.2%#"(,."#*)"*&#*#(45678#9:
- 6"$,--(*)"0"#(#2%%+2.1&.3(#2'#*,.$"(2#"(&.(5678#('#"1(+.(;2,-&*,*&<"(1,*,:
- =&#*(,*(-",#*(/&<"(+/(*)"(80"%&$,.(8##+$&,*&+.(+/(72%#"(8."#*)"#&+-+3>(488789(%"$+00".1"1(#*%,*"3&"#(*+(0&.&0&?"(1%23(1&<"%#&+.:(
- @1".*&/>(*)"(,##+$&,*&+.#('"*A"".(*)"(&0B-"0".*"1(8878(#*%,*"3&"#(,.1(B"%$"&<"1("//"$*&<".##(+/(*)"(#*%,*"3&"#:
- 5+.#&1"%(.+<"-(/&.1&.3#(,.1($+.$-2#&+.#(/%+0(0"%3"1(1,*,:

A

!"#$%& '( ) * +, -)#". -/01&

! 8. . ,(C+%#*"%D(EFD(67D(G) !
! =+%"**,(8. .(H+#*&$D(! 7GD(8G67D(5678D(GEI 7GJH5
! K">2(K) , . 3D(EF
! =&. 3#+. 3(K) , . 3D(G) !
! =&. 1,(F*+. "D(! 7GD(5678

! F*21>(#B+. #+%"1('>(*) "(7 , *&+. , -(5+2. $&-(+/(F*, *"(H+, %1#(+/(
72%#&. 3L(5" . *"%(/+%(6"32-, *+%>(MN$"--" . $"(4G%+0"$*(P6QRSSRRT9

B

567!,#-&'#893,"-&0%#:,%#

- VSDRRR(5678#(,.1(67(,."#*)"#&,(%"#&1".*#(&.($-&.&$,-(#"**&.3#(4887 8D(QRQQ9:
- G%,$*&$"(&.(A&1"(%,.3"(+/()",-*)$,%"(#"**&.3#D(&.$-21&.3(+B"%,*&.3(%++0#D(+//&$"#(/+%(1".*&#*#D(B+1&,*%&#*#D(+B)*),-0+-+3&#*#D(B-,#*&$(#2%3"+.#D(,.1(B,&.(0,.,3"0".*(#B"$&,-&#*#:
- W%&.X+//("*(,-:(4QRQQ9L(

  Nurses overall: 11.4% for SU problems; and 6.6% SUD

  APRNs: 15.2% SU problem and 4.0% SUD

  OR/PACU/Outpatient surgery/Anesthesia: 7.9% SU problems; 7.1% SUD

B

567 ! ,#-&'#893,"-&0%# : ,%#

- ! 5678#L(6&#X(/+%(FU ! #L(

  Moderate risk: 23.56% for Alcohol; 10.27% Tobacco; and 6.28% for Cannabis (Foli et al., 2023).

59++%&"#8"9 ' ;

- Y) , *(, %"(*) "(<2-. "%, ' &-&*&"#(+/(5678#(*+(&. &*&, *&+ . (+/(FUD(%"$2%%" . $"D(, . 1(+<"%, --(B"%$"B*&+ . #(%"-, *"1(*+(FUZ

- 8%"($2%%" . *(8878(%"$+0 0 " . 1"1(#*%, *"3&"#(*+(, <+&1(1&<"%#&+ . (' "&. 3(&0B-" 0 " . *"1 &. (*) "(+%3, . &?, *&+ . D(, . 1() +A(1+"#(&0B-" 0 " . *, *&+ . ($+0B, %"(A&*) (B"%$"&<"1("//"$*&<" . "##Z(

- @. (0 "%3&. 3(*) "(*A+(*>B"#(+/(1, *, D(A) , *(. "A(&. #&3) *#(#2%%+2 . 1&. 3(5678(FU $, . (' "(3, &. "1Z(

<%"$(',

- 8878(6"#",%$)(F"%<&$"#(2#"1(*+(1"B-+>(+.-&."(
  #2%<">(<&,([2,-*%&$#

- \]R(&.$".*&<"(+//"%"1

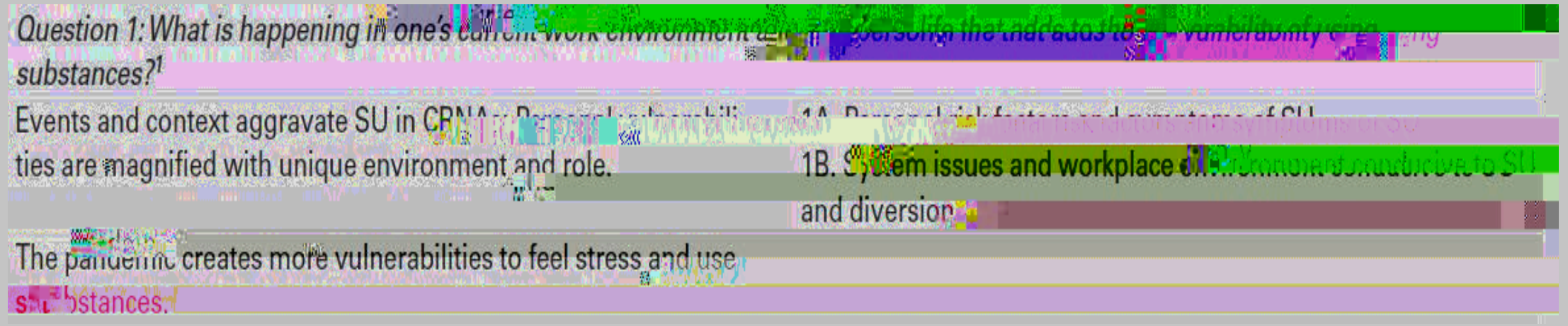
- ^DRRR(8878(0"0'"%#(#".*(#2%<">(&.(C"'%2,%>(
  QRQS(

- Q_R(%"#B+.#"#`(Sa]JQQ](#2%<">#(A&*)(T]b(+/(&*"0#(
  $+0B-"*"1

>*%&?@&'%'#."%=,

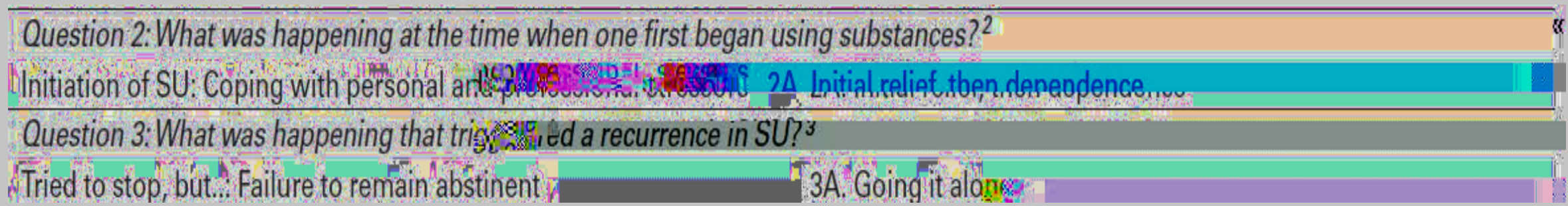
- Y),*(,11#(*+(*)"(<2-."%,'&-&*>(+/(2#&.3(#2'#*,.$"#Z
- Y),*(A,#(),BB".&.3(,*(*)"(*&0"(+/(/&%#*(#2'#*,.$"(2#"Z
- Y),*(*%&33"%"1(%"$2%%".$"(+/(FUZ
- 811&*&+.,-($+00".*#(%"-,*"1(*+(#2'#*,.$"(+%(,-$+)+-(2#"(+%(&0B,&%0".*:

! "#$%&'&('&)%*#+,-.//,%-,*#(%O#+,-)1,/2#


Question 1: What is happening in one's current work environment a
substances?[1]
Events and context aggravate SU in CRNA
ties are magnified with unique environment and role.
1B. System issues and workplace
and diversion
The pandemic creates more vulnerabilities to feel stress and use
substances.

H7$6;,*%&I&JKL&#$6F*%6$6&"%"+<M$8N
=<6;$E&,667$6&"%8&O*#PF+">$&$%:,#*%E$%;&>*%87>,:$&;*&
=9&"%8&8,:$#6,*%

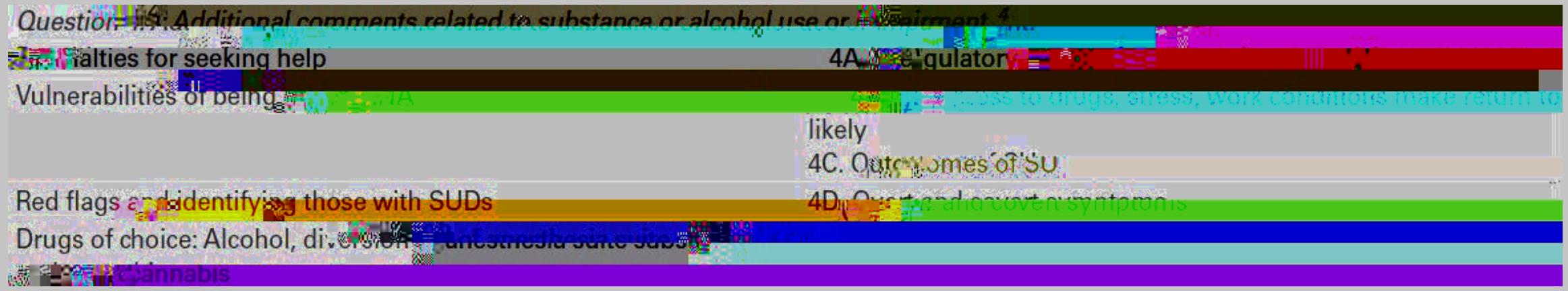
! "#$%&'&('&)%*#+,-.//,%-,*#(%O#+,-)1,/2#


Question 2: What was happening at the time when one first began using substances?2
Initiation of SU: Coping with personal and
2A. Initial relief, then dependence
Question 3: What was happening that triggered a recurrence in SU?3
Tried to stop, but... Failure to remain abstinent
3A. Going it alone

H7$6;,*%&BG&JKQ&#$6F*%6$6&"%"+<M$8N
R%,;,";,*%&*5&=9G&@*F,%?&O,;/&F$#6*%"+&"%8&F#*5$66,*%"+&
6;#$66*#6

H7$6;,*%&KG&JBI&#$6F*%6$6&"%"+<M$8N
S#,$8&;*&6;*F-&T7;U(&)",+7#$&;*&#$E",%&"T6;,%$%;

! "#$%&'&('&)%*#+,-.//,%-,*#(%O#+,-)1,/2#



Question 4: Additional comments related to substance or alcohol use or impairment	
Penalties for seeking help	4A. Regulatory
Vulnerabilities of being	4B. Access to drugs, stress, work conditions make return to
	likely
	4C. Outcomes of SU
Red flags and identifying those with SUDs	4D. Overt and covert symptoms
Drugs of choice: Alcohol, diversion, anesthesia suite subs	
cannabis	

H7$6;,*%&DG&JDI&#$6F*%6$6&"%"+<M$8N
.$%"+;,$6&5*#&6$$P,%?&/$+F

3343#5)%6&0,/('&)%6#7)/#8/.9#8&1,/6&)%#:/,1,%'&)%6

AANA Considerations for Drug Diversion Prevention Strategies: Organizational Implementation and Effectiveness

Variable	*n*	Implemented[1] *M (SD)*	Effective[2] *M (SD)*	*p* value
1. Institute random drug testing	198	1.32 (1.19)	3.15 (1.82)	<0.001
2. Install automated drug dispensers	198	2.76 (1.51)	3.32 (1.62)	0.001
3. Return all unused medication to a centralized location	197	2.65 (1.44)	3.42 (1.69)	<0.001
4. Secure return bins	198	2.35 (1.54)	3.45 (1.74)	<0.001
5. Audit anesthesia records	198	2.43 (1.73)	3.70 (1.35)	<0.001
6. Witness disposal of excess waste from medications	197	2.86 (1.48)	3.32 (1.61)	0.007
7. Collaborate with other departments to create reconciliation systems	195	2.67 (1.62)	3.51 (1.50)	<0.001
8. Investigate medication discrepancies	198	3.30 (1.34)	3.82 (1.29)	<0.001
9. Withdraw substances for only one patient at a time and administer immediately	197	2.00 (1.25)	3.40 (1.62)	0.010
10. Implement policies and procedures for investigations and management of confirmed diversions	197	2.52 (1.72)	3.68 (1.34)	<0.001
11. Create safe environment for prompt reporting to discourage drug diversion				

1$?7+";*#<&"%8&V#?"%,M";,*%"+&REF+,>";,*%6

! !"#$%&'(%)*(&+,-.1(-)

- F"-/J%"B+%*"1(1,*,(#2%%+2.1&.3(,(#".#&*&<"(*+B&$:

- =+A(%"#B+.#"(%,*"(-&X"->(12"(*+(1,*,($+--"$*&+.(12%&.3(
  *)"(5de@!JSa(B,.1"0&$:

- 5678#(A"%"(&0B,$*"1('>(B,*&".*(."'"1#(12%&.3(
  B,.1"0&$(A&*)('+*)(&.$%",#"1(,.1(1"$%",#"1(,$*&<&*&"#:(

C

- [2,-&*,*&<"(/&.1&.3#(B%+<&1"("<&1".$"(/+%(B"%#+.,-D(B%+/"##&+.,-D(
  ,.1(".<&%+.0".*,-(#*%"##+%#(/,$&.3(5678#:

- F&3.&/&$,.*(1&//"%".$"#(A"%"(.+*"1('"*A"".(&0B-"0".*"1(
  #*%,*"3&"#(*+(0&.&0&?"(1%23(1&<"%#&+.(,.1(B"%$"&<"1("//"$*&<".##(
  +/(*)"(#,0"(#*%,*"3&"#:

- E"%3"1(;2,-&*,*&<"(,.1(;2,.*&*,*&<"(1,*,(%"/-"$*(*),*(5678#(
  '"-&"<"(#&3.&/&$,.*('%%&"%#("N&#*(*),*(B%+)&'&*(%"B+%*&.3(+/(
  #2'#*,.$"(2#":

- M0B-+>"%("0B),#&#(+.(,-*"%.,*&<"J*+J1&#$&B-&."(B%+3%,0#(*+(
  B%+0+*"(,(#,/"(".<&%+.0".*(/+%(%"B+%*&.3(#2'#*,.$"(2#"(,.1(,.(
  "N,0&.,*&+.(+/(,(%"12$*&+.(&.(B".,-*&"#(/+%(%"B+%*&.3(FU(,%"($,--"1(
  /+%:(

! " #$%&' ()! **+&%',%+()+-) . /$*#)! (#*,0#*%+1+2345)5! /2/*,)6766784) 9 0',),+): (+ ;)'<+/,)
<#&+ " %(2)')=> . ! 4)/*?'<+/,@&$('*?<#&+ " #@'
&$('?ABCB,#D,E F +$#G67,0'(G676G6=H77G67*,/ I#(,G67$#2%*,#$# I JK
$'&,%&#G67*#,,%(2*G67+-G67#L#$3G67,3K#4
M#11J)N4) F 4J) F &N+(+/20J)04)P4J)Q11%*+(J)04)R4J)S)T%,U0/20J)Q4)=4)5VWWW84)=+(,$+11# I)I $/2)
" %*/*#)<3)&#$,%-%# I)$#2%*,#$# I)(/$*#)'(#*,0#,%*,*4)! ! " ! #$%&'() *+#, -5684J)VXXYVH74
T+1%J)Z4)04J)T+$*,#$J)! 4J)M+*,%&J)[4)! 4J)\0'(2J)\4J)\0'(2J)[4J)S)R,+(#J)[4)5](P$#**84)P$# I %&,+$*)+-)
/<,'(&#)/*#)$%*:)%()(/$*#)'(#*,0#,%*,*4)$%&'() *#%.# ! //0120%(3#"&'30(44)
T+1%J)Z4)04J)T+$*,#$J)! 4J)M+*,%&J)[4)! 4J)\0'(2J)\4J)\0'(2J)[4J)S)R,+(#J)[4)56766784) . /$*#)
'(#*,0#,%*,*B)=/$$#(,)K#$&#K,%+(*)'(I)K$'&,%&#*)$#1',#I),+)*/<*,'(&#)/*#4)
$%&'() *#%.#"&'30(4#564&*)20%(+#785H8J)6X@XH4)0,,K*B??I+%4+$2?V74V7V^?R6V__@
`6_^56687777`@H)
a$%(:+--J)!4) F 4J)R#1<3J)b4)[4J)c'(J)Z4J)M'&:J)c4J)R,##1#J)04J)Q I ;%(J)c4)R4J)d++(J)04) F 4J)S)R,+$$J)=4)
[4)56766784)a0#)K$#L'1#(&#)+-)*/<*,'(&#)/*#)'(I)*/<*,'(&#)/*#)K$+<1#" *)%()
$#2%*,#$# I)(/$*#*B)Q*,%" ',#*)-$+ "),0#) . /$*#) 9 +$:1%-#)'(I) 9 #11(#**)R,/ I 34)$%&'() *#
%.#"&'30(4#564&*)20%(+#785H8J)X_@H^4)
9 $%20,J)Q4)[4J) F &e/%(#**J)a4J) F +(#30'" J)[4)N4J)R&0/" '&0#$J)04)Q4J)\ ; #$1%(2J)!4J)S)
R,/11#(<'$2#$J) . 4)Q4) . 4)567V684) f K%+% I)'</*#)'" +(2)(/$*#)'(#*,0#,%*,*)'(I)
'(#*,0#*%+1+2%*,*4)! ! " ! #$%&'() *+#9:568J)V67YV6`4

C A C

Sample Demographics (n = 225)

Variable	n	%
Gender (n = 225)		
Male	86	38.22%
Female	138	61.33%
Other	0	0.0%
Decline to answer/missing	1	0.44%
Residence (n = 201)		
Urban	200	99.5%
Rural	1	0.5%
Race/Ethnicity (n = 218)		
Caucasian/White	190	84.44%
African American/Black	9	4.0%
Native American	0	0.0%
Hispanic American	5	2.22%
Asian American/Pacific Islander	10	4.44%
Bi-racial/multi-racial	2	0.89%
Other	2	0.89%
Hispanic/Latino (n = 225)		
Yes	13	5.78%
No/decline to answer	212	94.22%
Marital Status (n = 225)		
Married	163	72.44%
Living as if married	14	6.22%
Widowed/divorced/separated	24	10.67%
Never married	23	10.22%
No response	1	0.44%
Highest Education (n = 221)		
Master's degree or MSN	171	77.38%
DNP	30	13.57%
PhD or DNS	4	1.81%
Terminal degree outside of nursing	3	1.36%
Certificate/diploma nurse anesthesia	5	2.26%
Other	2	0.90%
Personal Income (n = 225)		
<$25,000	4	1.78%
$25,000–$49,999	2	0.89%
$50,000–$74,999	5	2.22%
$75,000–$99,999	5	2.22%
Decline	206	91.56%
Years as Practicing CRNA (n = 207)		
≤10	85	41.06%
11–20	65	31.40%
21–30	36	17.39%
31–40	19	9.18%
41–50	2	0.97%

! "#$%&'&('&)%*#+,-.//,%-,*#(%0#+,-)1,/2#

Themes and Subthemes: SU Initiation, Recurrence, and Recovery

Theme	Subtheme
Question 1: What is happening in one's current work environment and/or personal life that adds to the vulnerability of using substances?[1]	
Events and context aggravate SU	1A. Personal risk factors and symptoms of SU
ties are magnified with unique en ironment and	and diversion
The par ic creates more vulnerabilities to feel stress se substances.	
Question 2: What was happening at the time when one first began using substances?	
Initiation of SU: Coping with persona and pr ressors	2A. ief, then dependence
Question 3: What was happening tha iggered a recurrence in SU?[3]	
Tried to sto rem ain abstinent	3A. Going it alone
Question 4: Additional comments related to substance or alcohol use or impairment.	
Penalties for seeking help	4A. Regulatory, organizat and peer punishments
Vulnerabilities of being a CRNA	4B. Access to drugs, st ess, work conditions make return to us likely
	4C. Outcomes of SU
Red flags and identifying th	
Drugs of choice: and canna	