Supplemental Information for Four Clinical Groups on SCI, Wallston, Rotter

This material provides subsequent post hoc analysis and detailed examination of items to offer a preliminary control related profile of each group, then comparison between and among groups: on overall sense of control, modes of control desire for control, and agency of control

Comment from Johanna Shapiro, Ph.D.

This is an excellent paper – focused, well-written. Very high quality.

Discussion might include the following points:

1) Control is an important dimension of several common DSM diagnoses and deserves to be explored further

2) Control is complex, multifaceted phenomenon and that its different dimensions are also important in understanding various forms of psychopathology

3) SCI is superior to existing instruments in terms of identifying control-related aspects of psychopathology, and in terms of distinguishing them from a normal population

Elegant!

BORDERLINE GROUP. The borderline group had the highest score of the four groups on the negative sense of control scale and the desire for control scale. Subsequent post-hoc analysis revealed that the borderline group was significantly higher than both the both panic attack (t=-2.74; p=.0074) and generalized anxiety disorder (t=-2.12; p=.0388) groups on the negative sense of control scale; and ~~between borderline and~~ sig. higher than the depression group (t=3.04; p=.0026) and the panic attack group (t=3.50, p=.0007) on the desire for control scale (Table Two). In terms of specific items (Table Five), the borderline group expressed the highest score (and significantly higher than at least one other group) on items of "I lose control of myself;" "I lack control of my environment (other people, situations)"; "I want to control my anger better"; "control of other is important"; "power is important"; "like order and dislike ambiguity and the unknown"; "desire to control anger better."

Subsequent post-hoc analysis also showed that the borderline group was significantly higher than both the depressed group (t=3.89; p.=.0002) and the panic attack group (t=3.35; p=.0012) on the negative assertive mode of control (quadrant three)(Table Three); and had a significant lower in control score than the panic group (t=-2.39; p=.0189) and the Generalized Anxiety Disorder Group (GAD) (t=-2.08; p=.0428) on the overall domain-specific sense of control scale. (Table Four) Further inspection of Table Four and Table Five shows that the borderline group had significantly lower "in control" scores than at least one of the other groups in interpersonal relationships; in "the way I feel about

myself," as well as the lowest "in control" scores on the items of "sadness", "alcohol consumption," "violent behavior," and perceived self-control. Further, though non-significant, the borderline group also had the lowest feelings of being in control of all three groups in the areas of sexuality; spending habits; gambling, and management of time.

In terms of agency, the borderline's Rotter (10.95, sd 3.99) was the second highest (external), and, as can be seen from Table Five, the Wallston Internal was the highest of the four groups. Further, on the SCI agency items, the borderline group was the lowest of the four groups on sense of control from family and friends; and the lowest on sense of control from a "higher power."

Cl's rel?

Depression. The depression group had a significantly lower desire for control than the borderline (t=-3.04; p=.0026)(Table Two); and reported the lowest score on the item "fear of losing control." As can be seen from Tables Two and Five, the depressed group had the lowest positive sense of control scale, including the lowest score on the following items: perceived self-efficacy; able to set clear, realistic and meaningful goals; take appropriate responsibility for that over which I have control; and "I make the appropriate amount of effort and have sufficient discipline to reach my goals".

Further, the depression group had the lowest positive assertive (quadrant one) score, significantly lower than the borderline group (t=-2.48; p=.0152) and the generalized anxiety disorder group (t=-2.27, p=.0263)(Table Three); and had the highest score on the quadrant four mode item "I am too passive

and helpless" (Table Five); and the highest score on the item "I hold my anger in even when I want to express it".

The depression group also had the lowest overall domain specific sense of control, significantly lower than the panic attack group (t=-2.66; p=.0090) and the generalized anxiety group ((t=-2.25; p=.0282) (Table Four). In 16 out of 25 domain specific items their mean was less than 3.5, the most items of any group in which the group as an average felt "out of control." As can be seen from Tables Four and Five, the depressed group felt least "in control" in the area of "physical appearance," eating behavior, physical exercise, body weight, control of thoughts, employment situation, work habits, smoking, and drug usage. In several areas the depressed group feel between the borderline and the anxiety disorders. As can be seen from Table Four, their sense of control about interpersonal relations was significantly higher than the borderline group, but significantly lower than the GAD group. The depressed group felt significantly more in control of their relationship with the family of origin than the borderline group, but significantly less so than the panic attack group; and significantly less in control of their relationship with their children than the panic group. They were also significantly less in control of alcoholic consumption than the GAD group.

Although non-significant, the depressed group had the highest score (11.32; SD 3.90)(most external) on the Rotter; the highest score on the external benevolent other scale of the Wallston; and the lowest positive agency from self and positive agency from others on the SCI.

PANIC ATTACK. In many ways, relative to the borderline and the depressed groups, the panic attack group has several areas which represent a more positive control profile. The panic attack group had a significantly lower negative sense of control and desire for control (Table Two); lower negative yielding mode of control (quadrant three)(Table Three); and higher perceived self-control (Table Five) than the borderline group; a significantly higher overall domain specific sense of control (including the areas of interpersonal and "other"--violent behavior; and the item of "sadness") than the borderline and the depressed groups (Table Four and Five). As can further be seen from Table Five, the panic attack group had the highest in control feelings of any group in terms of relations with friends, children, and family of origin (all significantly higher than at least one other group); and the highest scores (though non-significant) in employment situation, work habits, place where I live, drug usage, gambling, and time management; and positive yielding mode of control. The panic attack group also had the lowest Rotter (9.74, sd 3.54) (i.e., highest internal locus of control) of the four groups. Interestingly, they were also the highest on the SCI agency items in terms of a positive sense of control from others (in general) and from family and friends and God and higher power in particular; and lowest "others have too much control over me."

The negative aspect of the panic attack control-profile included the following: alcohol consumption was significantly less in control than the GAD group; the lowest score of any group on the item "I have the skills and ability to reach my goals"; the highest score on "It is important to give the appear-

ance to others than my life is in control"; and the highest score in negative yielding (too little control), quadrant four. Further, the panic attack group felt "out of control" in nine of the 16 domain specific items. Finally, the panic attack group had the lowest scores on all three Wallston scales: ie.,their health was least governed of any group by chance, yet of all the groups, they felt that they and their Doctors were least able to effect a positive influence on health.

GENERALIZED ANXIETY DISORDER. Inspection of Tables Two through Five reveals that compared to the other three groups, the GAD group had the most positive control profile of all. The significant items are noted in the Tables, but results in a consistent direction are summarized here. The GAD group had the highest score on the overall general domain sense of control scale, the highest score on the positive sense of control scale, and the lowest score on the negative sense of control scale (Table Two); the highest positive assertive mode of control and lowest negative yielding mode of control (Table Three); the highest on the domain specific sense of control scale (Table Four), including only four items where they had scores of less than 3.5. The GAD group also had the highest perceived self-control, including highest feelings of being in control on the domain items of eating, physical exercise, body weight, sexuality, control of thoughts, relationship with significant other, way I feel about myself, spending habits, alcohol consumption, and smoking.

The negative aspects of GAD profile include responses of

highest quadrant three, negative assertive overcontrol scale score and highest score on "too much self-control"; lowest score on the item of "able to calmly accept that which I am not able to change or alter"; lowest feelings of being "in control" on domain items of "way my body functions"; "attention, concentration"; "stress."

<u>GAD vs. Panic Attack Groups</u>. These two groups were quite close in most areas, and there was only one SCI scale, one Wallston scale, and twelve SCI items that differentiated these two anxiety disorders. These are cited below, with the six significant items noted by an (*), the three items and one scale where the GAD had the highest score of the four groups and the panic attack had the lowest of the four groups noted by (^); and the three items and one scale where the panic attack group had the highest score and the GAD the lowest is noted by (+). The GAD group had higher scores on the following items: more aggressive and overcontrolling (*); too much self-control (^); more important to control others (*); power is important (*); "making appropriate effort and have sufficient discipline to reach goals" (*); have skills and ability to reach my goals (^); seek risks (*); more in control of alcohol consumption (*); and the Wallston chance scale (^). The panic attack group had the highest scores, and the GAD group the lowest on the items of "It is important for me to give the appearance that my life is in control"(+); "feeling lose control where once had it" (+); negative yielding mode of control scale (+).

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TABLE TWO
Shapiro Control Inventory (SCI)
SENSE OF CONTROL GENERAL DOMAIN SCALES
Positive, Negative, Overall, and Desire

POPULATIONS:	BORDER LINE	DEPRESS	PANIC ATTACK	GENERALIZED ANXIETY	Overall P
POSITIVE SCALE					
means	4.00	3.98	4.17	4.47	n.s.
(sd)	(.81)	(1.17)	(.96)	(1.03)	
NEGATIVE SCALE					
means	4.27@@,$	4.04	3.73@@	3.61$	
(sd)	(1.02)	(.88)	(.94)	(1.09)	<.05
OVERALL SENSE OF CONTROL					
means	3.92	3.98	4.22	4.43	n.s
(sd)	(.69)	(.98)	(.83)	(.92)	
DESIRE FOR CONTROL					
means	5.37++,@@@	4.97++	4.94@@@	5.19	<.01
(sd)	(.62)	(.75)	(.62)	(.78)	

BETWEEN CLINICAL GROUPS POST HOC ANALYSIS
+=Depression versus Borderline
*=Depression versus Panic Attack
#=Depression versus Generalized Anxiety Disorder
@=Borderline versus Panic Attack
$=Borderline versus Generalized Anxiety Disorder
&=Panic Attack Versus Generalized Anxiety Disorder

+,*,#,@,or $: P<.05

++,**,##,@@, or $$: P<.01

+++,***,###,@@@, or $$$: P<.001

TABLE THREE:
Shapiro Control Inventory (SCI)
MODE OF CONTROL: FOUR QUADRANTS

POPULATIONS:	BORDER LINE	DEPRESS	PANIC ATTACK	GENERALIZED ANXIETY	Overall P
QUADRANT ONE POSITIVE ASSERTIVE					
mean	2.32+	2.06+,#	2.16	2.42#	<.05
sd	(.41)	(.54)	(.59)	(.65)	
QUADRANT TWO POSITIVE YIELDING					
mean	2.07	2.16	2.24	2.22	n.s.
sd	(.42)	(.46)	(.48)	(.55)	
QUADRANT THREE NEGATIVE YIELDING					
mean	2.43+++,@@	2.02+++	2.06@@	2.64	<.001
sd	(.63)	(.41)	(.48)	(.58)	
QUADRANT FOUR NEGATIVE YIELDING					
mean	2.19	2.20	2.23	2.13	n.s.
sd	(.53)	(.62)	(.60)	(.59)	

BETWEEN CLINICAL GROUPS POST HOC ANALYSIS
+=Depression versus Borderline
*=Depression versus Panic Attack
#=Depression versus Generalized Anxiety Disorder
@=Borderline versus Panic Attack
$=Borderline versus Generalized Anxiety Disorder
&=Panic Attack Versus Generalized Anxiety Disorder

+,*,#,@,or $: P<.05

++,**,##,@@, or $$: P<.01

+++,***,###,@@@, or $$$: P<.001

TABLE FOUR
Shapiro Control Inventory (SCI)
DOMAIN SPECIFIC SENSE OF CONTROL SCORES

POPULATIONS:	BORDER LINE	DEPRESS	PANIC ATTACK	GENERALIZED ANXIETY	Overall P
OVERALL	3.79@$ (.58)	3.69**# (.76)	3.90**@ (.88)	4.10#$ (.87)	<.05
BODY	3.81 (1.03)	3.52 (1.20)	3.59 (1.20)	4.11 (1.28)	n.s.
MIND	2.93 (.98)	2.86 (1.25)	2.80 (1.17)	2.94 (1.41)	n.s.
INTERPERSON	2.97+@@@ (0.93)$$$	3.49+**# (0.93)	4.08**@@@ (1.20)	3.94#$$$ (1.26)	<.0001
SELF	2.67$ (1.47)	2.87# (1.44)	2.92 (1.55)	3.42#$ (2.15)	<.05
CAREER	3.93 (1.04)	3.55 (1.29)	3.75 (1.41)	3.94 (1.38)	n.s.
ENVIRON	3.96 (1.64)	4.03 (1.65)	3.87 (1.67)	4.25 (2.18)	n.s.
OTHER	4.96@$ (.66)	4.69* (0.90)	5.07*@ (.80)	5.14$ (.61)	<.05

BETWEEN CLINICAL GROUPS POST HOC ANALYSIS
+=Depression versus Borderline
*=Depression versus Panic Attack
#=Depression versus Generalized Anxiety Disorder
@=Borderline versus Panic Attack
$=Borderline versus Generalized Anxiety Disorder
&=Panic Attack Versus Generalized Anxiety Disorder

+,*,#,@,or $: P<=.05

++,**,##,@@, or $$: P<=.01

+++,***,###,@@@, or $$$: P<.001

TABLE 5: HIGHEST AND LOWEST SCORES OF FOUR GROUPS: GENERAL DOMAIN

	BORDER	DEPRESS	PANIC	GAD
OVERALL SENSE OF CONTROL	L-			H
POSITIVE SCALE		L-		H
self-efficacy	H	L-		
choices	L			H
goals;		L-		H
reponsbility;		L-		H
efforts/discpline		L*-		H*
skills to reach goals			L-	H
awareness	L*			H*
right self-control		L-		H
perceived self-control	L*-			H*
NEGATIVE	H*-			L
lose control of self	H*-			L
lack control of environ	H*-			L
losing control where had			H-	L
others control me too much	H-		L	
MODE				
q1 Positive Assertive		L*-		H*
can change/alter	H	L		H
q2 Positive Yielding	L		H	
q2 calmly accept		H		L-
q3 Negative Assertive		L*		H*
too aggressive	H*		L*	
too much self-control			L	H
control anger too much	L	H-		
want to let go control	H*		L*	
q4 Negative Yielding			H-	L
passive and helpless.		H-		L
DESIRE FOR CONTROL SCALE	H*		L*	
desire for control	H	L		
important to control self	L*			H
important to appear in control	H-		H	L
efforts for control	L	L		H
like order/ dislike ambiguity	H*			L*
fear of losing control	H	L		
want to control others	H*		L*	
power important	H*		L*	
achievement important	H		L	
control anger better	H*		L*	
gather info for decision	H*			L
seek risks		L*		H*
AGENCY				
+ control from own efforts		L-		H
+ control from others		L-	H	
family friends	L-		H	
govemernt		H	L	
higher power	L		H	
ROTTER I/E		H	L	

TABLE FIVE (PART TWO)

HIGHEST AND LOWEST SCORES OF FOUR GROUPS: DOMAIN SPECIFIC

	BORDER	DEPRESS	PANIC	GAD
DOMAIN SPECIFIC				
Overall across 25 items		**L*-**		**H***
# items with mean <3.5	13	16	9	4
BODY		**L**		**H**
eating behavior;		L-		H
physical exercise;		L-		H
physical appearnce;		L*-		H
body weight;		L-		H
sexuality;	L-			H
way my body functions	H			L-
MIND			**L-**	**H**
control of thoughts;		L-		H
attention/concentration	H			L-
stress		H		L-
sadness	L*-			H
RELATIONSHIPS	**L*-**		**H**	
with significant other;	L*-			H
with friends	L*-		H*	
with children	L*-		H*	
with family or origin	L*-		H*	
SELF	**L*-**			**H***
CAREER	**H**	**L-**		**H**
employment situation		L-	H	
spending habits;	L-			H
work habits		L-	H	
PLACE WHERE I LIVE		**L-**	**H**	
OTHER		**L*-**		**H***
alcohol consumption;	L*-			H
smoking		L		H
drug usage		L-	H	
violent behavior	L*-		H*	
gambling	L-		H	
time management	L-		H	
WALLSTON				
Internal	H		L-	
External benevolent		H	L-	
External chance			L	H

*=significantly different from at least one other group p<.05

L=lowest score

H=highest score

-=negative. No sign means either positive or not necessarily negative.

A PRELIMINARY CONTROL PROFILE OF DEPRESSION

Information from SCI
Key Findings
Lowest or Highest compared to the three groups:
*Lowest positive assertive (quadrant one) mode of control
*Lowest overall domain specific sense of control
*Lowest assessment of effort and discipline to reach goals
Lowest feelings of being in control in career area
Lowest in feeling in control of employment situation
Lowest in feeling in control of work habits
Lowest positive sense of control scale
Lowest frequency of self-efficacy;
lowest able to set goals
feels least frequently takes approrpriate respobility
most frequently able to calmly accept what acannot change or alter
least frequently acts assertive to change what can.
Lowest desire for control item
loest fear of losing control

16 of 25(3.5 in domain specific (most areas of concern;
Lowest in feeling in control of body area
Lowest in control of eating behavior;
Lowest in control of physical exercise
*Lowest in control of phsycial appearancel
Lowest in control of proper body weight
Lowest in feeling in control of thoughts
Lowest in feeling in control of drug usage
Lowest in feeling in control of smokin
Highest in feeling in control of stress.
Hold anger in highest
Highest in frequency of feeling passive and helpless
lowest degress of right self-control;
lowest gather information
Agency:
lowest others help me make changes;
lowest in sense of control comes from my own efforts
highest sense of control from goverment and society
Highest score (most external) on Rotters' internal/external locus of contol scale.
Highest external powerful other Wallston.

Between Borderline and Anxiety Disorders:
*More in control than borderline of
*violent behavior
*relationship with family of origin
*interpersonal relations
*significanlty less desire for control than Borderline
*significantly less feelings of losing control of self than borderline;
*significantly less feeling that control of others is important than borderline

*Less in control than GAD and/or Panic attack

A PRELIMINARY CONTROL PROFILE OF BORDERLINE PATIENTS

Information from SCI:

*Highest on Negative Sense of Control Scale

highest on: *lose control of self

*lack control of others and environment

highest others have too much control over me

Positive scale items

higest on belief inself-effiacy

highest (with GAD) on able to act assertively to change what I want

lowest score on ability to choose to make important decisions

Agency

lowest of sense of control from fmaily and freinds.

*Highest on Desire for Control Scale

highest on: *control of other is important;

*power imporatnt; *achievement imporant

*like order and dislike ambiguity and the unknown

*desire to control anger better

gathers information for decision

highest fear of losing control

lowest it is imporatnt o be in control of myself

General domain items; 13 of 25 <.3.5

*lowest perceived self-control

*highest feelings of being too aggressive and overcontrolling

*2nd highest mode item of negative assertive (Quadrant three)

lowest quadrant two, positive yielding score

*highest desire to let go of control

Lowest score (least in control) on Domain-Specific items of

*sadness, 2.13

*relationship with signficiant other, 2.13

*feelings about self, 2.54

*family of origin. 2.77

*alcohol consumptions 4.59

*violent behavior 4.00

sexaulity; 3.74

spending habits; 3.41

gambling, 5.25

managmeent of time. 3.25

holds anger in least frequencty; most wants to control anger better

Stress 2.83

friends 2.92

check 2.79

PANIC ATTACK.

MODE
least aggressive and overcontrolling

POSITIVE SENSE OF CONTROL
lowest score in have skils and ability to reach my goal

NEGATIVE SENSE OF CONTROL
lowest in others have too much control over me

AGENCY
highest in others help me make changes to reach my goals.
highest in sense of control from family and friends;
lowest from govetment and society;
highest from God, higher poweir.;

DESIRE
lowest be in control of others is imporatnt.
highest in imporatnt to give the appearnce to others that my life is in control; (gad is lowest)
least want to control anger better;
least importannt: achievement; having power

DOMAIN
Nine of 25 areas were <3.5
Most in control interpesonally
most in control of "sadness"; relationsips with friends; highestin relationshiwith children."; most in control of employment situation; most in control of work habits; most oin control of place where I liave; most in control ofdrug usage ; most in control of violent bheavior.; most in control of gampling; most in control of managmentof time.

ROTTER/WALLSTON: lowest chance; lowest exteranl powerful other as Dr.; and lowest internal self with health; highest ROtter.; panic lowest rotter (most internal of all three groups) yet lowest health internal wallston loest benevolent other

Lowest.

Stress 2.12.
Satisfaction 2.93
self-esteem 3.12
Health 3.20

GENERALIZED ANXIETY DISORDER

SENSE OF CONTROL
highest positive
most able to make choices about important events in life;
most able to set goals;
feels most frequently takes apprpairate reponsbility;
highest belief in appropariate amount of efforts and skills to reach goals.
highest in skills and ability to reach goals
right degree of self-control highest;

*lowest negative
lowest lose control of self
lowest lack control of envoiroment)
lowest fear losing control in areas where once had it
highest overall

MODE
*highest q one; highest able to act assertively and decisly to change or alter what I want.
least able to calmly accept what cannot change or alter.
lowest q4 mode
lowest passive and helpless.
Overcontrol:
too much self-control highest

DOMAIN SPECIFIC
*highest overall domain sepcific sense of control
four of twenty-five items had a group mean of (3.5).;
highest feeling in control in terms of way I feel about myself
most in control in "other area";
*most in control of place where I live;
highest sense of control on eating behavior; physical exercise;physical appearnce; body weight; sexuality; control of thoughts;relatonsip with significant other; most in control of spending habits;
most in control of alchol consumption;smoking
lowest sense of control on way body functionsl; attention, concentration; lowest in control of stress

LAGENCY
highest in sense of control from my own efforts.

DESIRE
Highest frequency of imporant to be in ctonrol of myself (and borderline was lowest)
lowest in imporatnce to give the papearnce to others that my life is in control;
highest efforts for control
least needing things around me to be ordered and dislike ambiguity (sort of like GAD likes it)?

Highest Chance, external, Wallston.