

# Appendix A

# **Supplementary Materials**

## Table A1

#### **Descriptive Statistics**

	n	М	SD	Observed	α
				range	
Social support variables					
Received support frequency (RSF)	118	1.85	0.77	0.25-3.75	.62
Family	118	2.58	1.13	0-4.00	-
Friends	118	2.59	1.19	0-4.00	-
Faculty/staff	118	1.22	1.11	0-4.00	-
Institution	118	1.02	1.05	0-4.00	-
Received support quality (RSQ)	117	3.44	0.77	1.50-5.00	.64
Family	118	3.90	0.99	1.00-5.00	-
Friends	118	3.81	1.12	1.00-5.00	-
Faculty/staff	118	3.14	1.19	1.00-5.00	-
Institution	117	2.90	1.17	1.00-5.00	-
Well-being variables					
Stress	125	2.15	0.81	0-3.75	.83
Burnout	114	3.75	1.24	1.00-6.00	.94
Loneliness	111	2.69	0.73	1.25-4.00	.80
Belonging	80	3.29	0.60	1.89-4.56	.80
Quitting intentions	114	1.61	0.75	1.00-4.00	.83
Life satisfaction	113	4.20	1.62	1.00-7.00	.91

*Note*. Means, standard deviations, and observed ranges are presented as an average of item scores. Statistics presented for RSF and RSQ rows are for composite measures of RSF and RSQ that combine across sources.

#### **Appendix A (Supplementary Materials)**



Zero-order Correlations among Social Support Variables

		1	2	2	4	5	6	7	0	0	10	11
		1	Z	3	4	5	0	/	8	9	10	11
1.	Received support	-										
	frequency (RSF)											
2.	Family	-	-									
3.	Friends	-	.24**	-								
4.	Faculty/staff	-	.35***	$.20^{*}$	-							
5.	Institution	-	.27**	.05	.69***	-						
6.	Received support	.65***	.41***	.37***	.53***	.47**	-					
	quality (RSQ)											
7.	Family	$.52^{***}$	.65***	$.20^{*}$	$.30^{***}$	.27**	-	-				
8.	Friends	.37***	.12	.72***	.11	.02	-	.29***	-			
9.	Faculty/staff	.47***	.23**	.03	.63***	.43***	-	.25**	.13	-		
10.	Institution	.41***	.18	.07	.39***	.53***	-	$.20^{*}$	$.18^{*}$	.71***	-	

*Note.* Bolded coefficients represent correlations between measures of received support frequency and quality paralleled by support source. Coefficients for numbers 1 and 6 (RSF and RSQ) are for measures of total RSF and RSQ (combined sources). \*p < .05. \*\* $p \le .01$ . \*\*\*p < .001

#### **Appendix A (Supplementary Materials)**



# Zero-order Correlations Among Well-being Variables

	1	2	3	4	5	6
1. Stress	-					
2. Burnout	.63***	-				
3. Loneliness	.38***	.26**	-			
4. Quitting intentions	.32***	$.40^{***}$	.30**	-		
5. Belonging	14	32**	37***	51***	-	
6. Life satisfaction	59***	44***	59***	40***	.39***	-

 $p^* < .05. p^* < .01. p^* \le .001$ 

Appendix A (Supplementary Materials)

#### Variable В SE t р Total effects Stress regressed on: Constant 2.38/2.45/2.28/2.24 .20/.19/.12/.12 .00/.00/.00/.00 11.70/12.70/18.97/19.34 .04/.01/.05/.03 .22/.09/.29/.18 Country .17/.16/.17/.17 .83/.93/.77/.86 Gender -.41/-.43/-.36/-.33 .22/.22/.22/.22 -1.87/-1.95/-1.66/-1.46 .06/.05/.10/.15 RSF -.07/-.09/-.08/-.06 -1.00/-1.49/-1.11/-.80 .32/.14/.27/.43 .07/.06/.07/.07 $R^2 = .03/.04/.04/.03$ Direct effects RSQ regressed on: Constant 2.44/2.00/2.27/2.27 .19/.19/.14/.14 12.72/10.62/16.40/15.83 .00/.00/.00/.00 Country -.09/.13/.30/.15 .16/.16/.19/.21 -.54/.82/1.53/.74 .59/.41/.13/.46 Gender .08/.07/.09/.05 .21/.22/.25/.28 .39/.33/.35/.19 .70/.75/.73/.85 RSF 8.71/11/04/8.04/6.33 .57/.68/.64/.58 .07/.06/.08/.09 .00/.00/.00/.00 $R^2 = .41^{***}/.53^{***}/.40^{***}/.28^{***}$ Stress regressed on: Constant 2.68/2.41/2.75/2.46 .32/.27/.22/.21 8.45/8.77/12.71/11.81 .00/.00/.00/.00 .03/.01/.11/.05 .17/.17/.17/.17 .16/.07/.67/.27 .88/.95/.51/.79 Country Gender -.40/-.43/-.34/-.32 .22/.22/.21/.22 -1.83/-1.95/-1.61/-1.45 .07/.05/.11/.15 RSF .00/-.11/.06/.00 .09/.09/.08/.09 .01/-1.19/.65/-.03 .99/.24/.52/.97 RSO -.12/.02/-.21/-.10 -1.23/.22/-2.58/-1.27 .10/.10/.08/.08 .22/.82/.01/.21 $R^2 = .05/.05/.09^*/.04$ SE Effect LL 95% CI UL 95% CI Bias-corrected bootstrap results for indirect effect Indirect effect of RSF on stress via RSO -.07/.01/-.13/-.06 .06/.07/.05/.05 -.18/-.13/-.24/-.16 .04/.16/-.04/.04

#### Mediations of Received Support by Source on Stress

*Note*. All regression coefficients are unstandardized and presented by source of support as follows: family/friends/faculty and staff/institution (n = 116/116/115). Bootstrap sample size = 5,000. LL = lower limit; CI = confidence interval; UL = upper limit. Country coded as 0 = Canada, 1 = U.S.; gender identity coded as 0 = female, 1 = male.

\* $p \le .05$ . \*\* $p \le .01$ . \*\*\* $p \le .001$ 

#### **Appendix A (Supplementary Materials)**

Mediations	of Receiv	ed Support I	by Source	on Burnout
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Variable	B	SE	t	p
	T	otal effects		
Burnout regressed on:				
Constant	3.66/4.21/4.05/3.89	.32/.30/.18/.18	11.63/13.88/22.15/21.84	.00/.00/.00/.00
Country	10/05/.07/03	.26/.26/.26/.26	36/20/.25/12	.72/.84/.80/.90
Gender	45/58/45/44	.34/.34/.33/.35	-1.32/-1.70/-1.36/-1.25	.19/.09/.18/.21
RSF	.07/14/21/07	.11/.10/.11/.12	.63/-1.39/-1.95/63	.53/.17/.05/.53
$R^2 = .02/.04/.05/.02$				
	Di	rect effects		
RSQ regressed on:				
Constant	2.43/2.00/2.23/2.25	.19/.19/.14/.14	12.53/10.25/15.83/15.63	.00/.00/.00/.00
Country	07/.12/.30/.13	.16/.17/.20/.21	40/.73/1.47/.60	.69/.47/.14/.55
Gender	.10/.07/.11/.04	.21/.22/.26/.28	.47/.31/.42/.13	.64/.76/.68/.90
RSF	.57/.68/.65/.60	.07/.06/.08/.09	8.49/10.73/7.88/6.45	.00/.00/.00/.00
$R^2 = .41^{***} / .52^{***} / .41^{***} / .30^{***}$				
Burnout regressed on:				
Constant	4.17/4.74/4.68/4.58	.49/.42/.33/.31	8.51/11.27/14.38/14.63	.00/.00/.00/.00
Country	11/02/.15/.01	.26/.26/.26/.26	42/07/.57/.03	.68/.94/.57/.98
Gender	43/56/42/42	.34/.34/.33/.34	-1.27/-1.66/-1.29/-1.25	.21/.10/.20/.21
RSF	.19/.04/02/.11	.14/.14/.13/.13	1.34/.32/18/.85	.19/.75/.86/.40
RSQ	21/27/28/31	.16/.15/.12/.12	-1.35/-1.81/-2.33/-2.65	.18/.07/.02/.01
$R^2 = .04/.06/.10^*/.08^*$				
	Effect	SE	LL 95% CI	UL 95% CI
	Bias-corrected boots	strap results for indirect	effect	
Indirect effect of RSF on burnout via RSO	12/18/19/19	.09/.11/.09/.08	31/40/39/36	.06/.04/02/03

Note. All regression coefficients are unstandardized and presented by source of support as follows: family/friends/faculty and staff/institution (n = 113/113/113/112). Bootstrap sample size = 5,000. LL = lower limit; CI = confidence interval; UL = upper limit. Country coded as 0 = Canada, 1 = U.S.; gender identity coded as 0 = female, 1 = male. \* $p \le .05$ . \* $p \le .01$ .

#### **Appendix A (Supplementary Materials)**

Mediations of Received Support by Source on Loneliness

Variable	В	SE	t	р
		Total effects		
Loneliness regressed on:				
Constant	3.03/3.39/2.82/2.76	.18/.16/.11/.10	16.74/20.59/25.96/26.29	.00/.00/.00/.00
Country	11/14/11/15	.15/.14/.15/.15	70/97/69/97	.48/.33/.49/.34
Gender	.03/09/.12/.14	.20/.19/.20/.21	.13/46/.61/.68	.90/.65/.55/.50
RSF	13/25/11/06	.06/.05/.06/.07	-2.02/-4.69/-1.72/84	.05/.00/.09/.40
$R^2 = .05/.18^{***}/.04/.02$				
		Direct effects		
RSQ regressed on:				
Constant	2.43/2.01/2.26/2.29	.20/.20/.14/.14	12.41/10.02/16.08/15.94	.00/.00/.00/.00
Country	07/.10/.29/.09	.17/.17/.20/.21	24/.60/1.47/.42	.81/.55/.15/.68
Gender	.04/.05/.11/.03	.22/.23/.26/.28	.19/.23/.44/.10	.85/.82/.66/.92
RSF	.57/.68/.66/.59	.07/.07/.08/.09	8.35/10.42/7.93/6.22	.00/.00/.00/.00
$R^2 = .41^{***} / .52^{***} / .41^{***} / .28^{***}$				
Loneliness regressed on:				
Constant	3.34/3.52/3.06/3.01	.28/.23/.20/.19	11.83/15.31/15.26/15.61	.00/.00/.00/.00
Country	11/13/08/14	.15/.14/.16/.15	74/92/49/91	.46/.36/.63/.36
Gender	.03/08/.13/.14	.20/.19/.20/.21	.15/44/.67/.70	.88/.66/.50/.49
RSF	05/21/04/.01	.08/.08/.08/.08	68/-2.71/50/.07	.50/.01/.62/.94
RSQ	13/07/11/11	.09/.08/.07/.07	-1.42/83/-1.42/-1.54	.16/.41/.16/.13
$R^2 = .07/.19^{***}/.06/.04$				
	Effect	SE	LL 95% CI	UL 95% CI
	Bias-correct	ted bootstrap results for in	direct effect	
Indirect effect of RSF on loneliness via RSQ	07/05/07/06	.06/.06/.06/.05	18/16/19/16	.05/.08/.03/.03

Note. All regression coefficients are unstandardized and presented by source of support as follows: family/friends/faculty and staff/institution (n = 110/110/109). Bootstrap sample size = 5,000. LL = lower limit; CI = confidence interval; UL = upper limit. Country coded as 0 = Canada, 1 = U.S.; gender identity coded as 0 = female, 1 = male.\* $p \le .05.$  \*\* $p \le .01.$  \*\*\* $p \le .001$ 

#### **Appendix A (Supplementary Materials)**

Mediations of Received Support by Source on Quitting Intentions

Variable	В	SE	t	р
		Total effects		
Quitting intentions				
regressed on:				
Constant	1.78/1.68/1.74/1.70	.19/.18/.11/.11	9.35/9.13/15.71/15.83	.00/.00/.00/.00
Country	14/16/10/15	.16/.16/.16/.16	87/-1.05/61/92	.39/.29/.54/.36
Gender	.14/.16/.20/.23	.21/.21/.20/.21	.69/.79/.98/1.09	.49/.43/.33/.28
RSF	06/02/11/08	.07/.06/.07/.07	90/36/-1.74/-1.16	.37/.72/.08/.25
$R^2 = .03/.02/.05/.03$				
		Direct effects		
RSQ regressed on:				
Constant	2.43/2.00/2.23/2.25	.19/.19/.14/.14	12.53/10.25/15.83/15.63	.00/.00/.00/.00
Country	07/.12/.21/.17	.16/.17/.20/.21	40/.73/1.47/.60	.69/.47/.14/.55
Gender	.10/.07/.04/06	.21/.22/.26/.28	.47/.31/.42/.13	.64/.76/.68/.90
RSF	.57/.68/.46/.43	.07/.06/.08/.09	8.49/10.73/7.88/6.45	.00/.00/.00/.00
$R^2 = .41^{***} / .52^{***} / .41^{***} / .30^{***}$				
Quitting intentions regressed on:				
Constant	1.50/1.58/2.33/2.29	.30/.26/.19/.18	5.06/6.09/12.26/12.62	.00/.00/.00/.00
Country	13/17/02/11	.16/.16/.15/.15	82/-1.09/12/75	.41/.28/.90/.45
Gender	.13/.16/.23/.24	.21/.21/.19/.20	.64/.77/1.19/1.21	.53/.44/.24/.23
RSF	12/06/.06/.08	.08/.09/.08/.08	-1.47/66/.78/1.03	.14/.51/.44/.30
RSQ	.11/.05/27/27	.09/.09/.07/.07	1.22/.57/-3.73/-3.94	.22/.57/.00/.00
$R^2 = .04/.02/.15^{***}/.15^{***}$				
	Effect	SE	LL 95% CI	UL 95% CI
	Bias-corr	ected bootstrap results for in	ndirect effect	
Indirect effect of RSF on	.07/.04/17/16	.06/.07/.06/.06	05/09/30/28	.19/.19/07/06
quitting intentions via RSQ				

Note. All regression coefficients are unstandardized and presented by source of support as follows: family/friends/faculty and staff/institution (n = 113/113/112). Bootstrap sample size = 5,000. LL = lower limit; CI = confidence interval; UL = upper limit. Country coded as 0 = Canada, 1 = U.S.; gender identity coded as 0 = female, 1 = male. \* $p \le .05$ . \*\* $p \le .01$ .

#### **Appendix A (Supplementary Materials)**

## Mediations of Received Support by Source on Belonging

Variable	B	SE	t	p
	Tot	al effects		
Belonging regressed on:				
Constant	2.76/3.04/2.88/3.01	.18/.16/.10/.10	15.60/18.51/28.66/31.12	.00/.00/.00/.00
Country	.42/.49/.43/.47	.14/.14/.13/.14	3.06/3.58/3.32/3.45	.00/.00/.00/.00
Gender	.41/.37/.31/.28	.17/.18/.17/.18	2.39/2.10/1.90/1.59	.02/.04/.06/.12
RSF	.13/.02/.17/.09	.06/.05/.05/.06	2.09/.36/3.23/1.56	.04/.72/.00/.12
$R^2 = .22^{***} / .17^{**} / .27^{***} / .20^{**}$				
	Dire	ect effects		
RSQ regressed on:				
Constant	2.43/1.84/2.57/2.47	.24/.22/.15/.15	10.04/8.22/17.59/16.37	.00/.00/.00/.00
Country	.14/.13/.23/.15	.19/.19/.19/.21	.76/.68/1.25/.72	.45/.50/.22/.47
Gender	.21/.16/.28/.34	.24/.24/.24/.28	.89/.65/1.17/1.23	.38/.52/.24/.22
RSF	.54/.74/.49/.50	.08/.07/.08/.09	6.49/10.15/6.32/5.44	.00/.00/.00/.00
$R^2 = .39^{***} / .58^{***} / .38^{***} / .34^{***}$				
Belonging regressed on:				
Constant	2.65/2.95/2.16/2.92	.27/.23/.21/.21	9.77/13.02/10.39/14.13	.00/.00/.00/.00
Country	.41/.48/.36/.46	.14/.14/.12/.14	2.99/3.51/3.03/3.38	.00/.00/.00/.00
Gender	.40/.36/.23/.27	.17/.18/.15/.18	2.32/2.04/1.53/1.50	.02/.04/.13/.14
RSF	.10/02/.04/.07	.08/.08/.06/.07	1.35/20/.59/1.06	.18/.84/.56/.29
RSQ	.05/.05/.28/.04	.08/.08/.07/.07	.54/.57/3.83/.48	.59/.57/.00/.63
$R^2 = .22^{***} / .18^{**} / .39^{***} / .20^{**}$				
	Effect	SE	LL 95% CI	UL 95% CI
	Bias-corrected bootstr	ap results for indirect effe	ect	
Indirect effect of RSF on belonging via RSQ	.02/.04/.14/.02	.05/.08/.04/.05	08/15/.06/08	.10/.17/.22/.12

*Note.* All regression coefficients are unstandardized and presented by source of support as follows: family/friends/faculty and staff/institution (*ns* = 80).

Bootstrap sample size = 5,000. LL = lower limit; CI = confidence interval; UL = upper limit. Country coded as 0 = Canada, 1 = U.S.; gender identity coded as 0 = female, 1 = male.

 $p \le .05$ .  $p \le .01$ .  $p \le .001$ 

#### **Appendix A (Supplementary Materials)**

## Mediation of Received Support by Source on Life Satisfaction

Variable	В	SE	t	р
	Tot	al effects		<u> </u>
Life satisfaction regressed on:				
Constant	2.88/3.30/3.86/4.06	.39/.38/.24/.23	7.48/8.61/16.36/17.70	.00/.00/.00/.00
Country	.24/.44/.31/.43	.32/.33/.34/.34	.76/1.35/.90/1.28	.45/.18/.37/.20
Gender	.09/.00/24/26	.42/.43/.43/.45	.22/.00/56/58	.82/1.00/.58/.56
RSF	.49/.31/.27/.09	.13/.13/.14/.15	3.66/2.47/1.91/.59	.00/.02/.06/.56
$R^2 = .13^{**} / .07^* / .05 / .02$				
	Dire	ect effects		
RSQ regressed on:				
Constant	2.44/1.99/2.23/2.24	.20/.20/.14/.14	12.52/10.21/15.74/15.54	.00/.00/.00/.00
Country	07/.11/.31/.14	.16/.17/.20/.21	44/.66/1.50/.64	.66/.51/.14/.52
Gender	.09/.06/.11/.05	.21/.22/.26/.28	.43/.29/.44/.17	.67/.77/.66/.87
RSF	.57/.69/.65/.60	.07/.06/.08/.09	8.42/10.76/7.78/6.33	.00/.00/.00/.00
$R^2 = .41^{***} / .53^{***} / .41^{***} / .30^{***}$				
Life satisfaction regressed on:				
Constant	1.98/3.06/3.11/3.49	.60/.54/.42/.41	3.32/5.69/7.39/8.49	.00/.00/.00/.00
Country	.27/.43/.20/.40	.32/.33/.34/.34	.85/1.30/.61/1.18	.40/.19/.55/.24
Gender	.06/01/28/27	.41/.43/.42/.45	.14/02/66/61	.89/.99/.51/.54
RSF	.28/.23/05/06	.17/.18/.17/.17	1.64/1.26/.28/37	.10/.21/.78/.71
RSQ	.37/.12/.33/.26	.19/.19/.16/.15	1.97/.62/2.12/1.68	.05/.54/.04/.10
$R^2 = .16^{***} / .08 / .09^* / .05$				
	Effect	SE	LL 95% CI	UL 95% CI
	Bias-corrected bootstr	ap results for indirect effe	ect	
Indirect effect of RSF on life satisfaction via RSQ	.21/.08/.22/.15	.12/.14/.11/.11	03/22/.03/05	.44/.34/.45/.38

Note. All regression coefficients are unstandardized and presented by source of support as follows: family/friends/faculty and staff/institution (n =

112/112/112/111). Bootstrap sample size = 5,000. LL = lower limit; CI = confidence interval; UL = upper limit. Country coded as 0 = Canada, 1 = U.S.; gender identity coded as 0 = female, 1 = male.\* $p \le .05.$  \*\* $p \le .01.$  \*\*\* $p \le .001$ 

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