

Online supplementary test

Methods

Participants

For this study, 118 patients (40 men), aged between 18 and 67 years, were recruited at the Department of Psychiatric Emergency and Acute Care, Academic Hospital (CHU) of Montpellier, France, where they were admitted for a major depressive episode, according to the DSM-IV criteria. Patients with a diagnosis of current mixed episode, current manic episode, lifetime schizoaffective disorder or schizophrenia were excluded. Psychiatric disorders were diagnosed by senior psychiatrists using the French version of the Mini International Neuropsychiatric Interview (MINI 5.0) (1).

Among the included inpatients, 41 had no personal history of suicidal behaviour (non-attempters), and 77 had a history of suicide attempt (suicide attempters): 44 with a recent suicide attempt (i.e., hospitalized following a suicidal act) and 33 with history of a past suicide attempt (i.e., lifetime history of suicidal act). A suicide attempt was defined as a self-damaging act carried out with the intention to die. It is different from self-mutilation, the use of substances, or non-compliance with medical treatment (2). The Montpellier University Hospital ethics committee (CPP Sud Méditerranée IV) approved the study. Written informed consent was obtained from all participants.

Clinical assessment

At admission, patients completed different scales as part of the routine clinical assessment: 1. We evaluate depressive symptomatology using the Beck Depression Inventory (BDI: Beck, 1961); 2. We evaluate physical and psychological Pain using Visual Analog Scale (PPP-VAS) that evaluates current pain and the worst pain over the last 15 days (maximum). This scales range from 0 (none) to 10 (maximum possible pain). Also, the current and maximal suicidal ideation within the last 15 days, were evaluated using the same method. Previous research of the team used this scales (4), also there are recent evidence that validates the use of this kind of scales to measure pain (both physical and psychological) and suicidal ideation (5); 3. cognitive level using the French version of the National Adult Reading Test (NART) (6). Sociodemographic variables and current psychotropic medications were recorded.

Medication load

A general index of medication load was computed for each participant based on the summation of the different dosages of each medication. Specifically, first the dosage of each drug was coded separately as absent (0), low (1), or high (2). A previously described approach (7) was used to differentiate between the levels of drug dosages. Finally, the total medication load (dose and variety of the different drugs taken) was computed by adding up all individual medication codes for each medication category and for each individual participant.

The Iowa Gambling Task

The computerized original version of the IGT (35) was used. This task evaluates the decision-making skills in conditions of ambiguity and risk uncertainty. Patients received the instruction of gaining as much money as possible starting with 2000 €. They had to choose between four decks: two disadvantageous decks (Deck A and B) that provided immediate higher gains, but greater future losses (long-term loss), and two advantageous decks (Deck C and D) that provided immediate lower gains, but smaller future losses (long-term gain). Participants completed 100 trials and the program provided feedback after each trial. The primary dependent variable (IG index) was the mean difference between the number of trials with

advantageous deck choices and the number of trials with disadvantageous deck choices (i.e., CD – AB; 5 blocks of 20 trials).

Statistical analyses

To compare the demographic and clinical variables, patients were divided in two groups on the basis of the mean IG index, dichotomized according to the median value in the whole population. The Chi-square test was used to compare qualitative variables, and ANOVA to compare quantitative variables using the dichotomized IGT variable and suicide attempt (yes/no) as factors. Pearson correlations were performed using the regressed variables, and t-tests with the dichotomized IGT index and suicide attempt as factors to compare pain, suicidal ideation and IGT performance.

Moderated regression analyses were performed using mean-centred predictors to calculate the interaction terms. Significant and trend interactions were decomposed using simple slopes analyses (9). Moderated regression analyses were used to assess whether IGT and psychological or physical pain interacted to predict suicidal ideation, suicide attempt or depression. First, current suicidal ideation was predicted using current physical or psychological pain as predictor and IGT as moderator. Second, similar analyses were performed in which maximal suicidal ideation was predicted using the maximal physical or psychological pain as predictors and IGT as moderator. To improve the analysis reliability, the same analyses were performed with the categorized BDI suicidal item (0 = no suicidal ideation vs. 1, 2 or 3 = suicidal ideation) as predicted variable. Third, recent suicide attempt (= 1) vs no history of suicide attempt (= 0) was predicted using physical or psychological pain (current or maximal) as predictor and IGT as moderator. Finally, depression (BDI total score) was predicted using physical or psychological pain (current or maximal) as predictor and IGT as moderator. Covariates (i.e., age, NART score, medication load, and/or BDI score) were used when they were correlated with the predicted variables. For the prediction of recent suicide attempt vs no history of suicide attempt, variables found to be significant in the previous chi-square and ANOVA analyses were used (i.e., sex and eating disorder).

The alpha significance level was fixed at 0.05. Bonferroni correction was used for multiple comparisons. All statistical analyses were performed with SPSS 20.0.

Results

Demographic and clinical variables

The sample's demographic and clinical characteristics are shown in Table 1. Age, study level, NART score, BDI total score and medication load were not significantly different between suicide attempters (recent or past; $n=77$) and non-attempters ($n=33$) and between subjects with high ($n=57$) and with low IGT index ($n=55$) ($p > 0.05$).

Conversely, women were more numerous in the group with low IGT than in that with high IGT index ($\chi^2 = 4.32$, $p < .04$) and also among suicide attempters than non-attempters ($\chi^2 = 6.45$, $p < .04$). Similarly, the percentage of patients with eating disorders was higher among suicide attempters than non-attempters ($\chi^2 = 6.57$, $p < .04$), and the intensity of the maximum suicidal ideation was higher in recent suicide attempters than in non-attempters or past attempters ($F_{2, 114} = 11.89$, $p < .001$, $\eta^2 = .17$). Moreover, the maximal psychological pain was higher in recent suicide attempters than non-attempters ($F_{2, 115} = 3.93$, $p < .02$, $\eta^2 = .06$).

Analysis of the correlations among confounding variables (Table 2) showed that age correlated negatively with maximal suicidal ideation ($r = -.199$, $p < .03$). NART correlated positively with maximal suicidal ideation (numerical score: $r = .208$, $p < .03$; BDI suicidal ideation item: $r = .252$, $p < .01$; and BDI total score $r = .215$, $p < .04$). BDI total score correlated positively with

current suicidal ideation (numerical score: $r = .465, p < .001$; BDI suicidal ideation item: $r = .523, p < .001$).

Suicidal ideation prediction by pain and moderation by decision-making

The IG index and pain (physical or psychological) interaction did not predict current suicidal ideation (numerical scale score; $p > 0.05$) (Table 3).

When using the maximal suicidal ideation (numerical scale score) as predicted variable, a significant effect of the psychological pain (maximal) \times IGT interaction was observed ($\beta = .33$, CI95: [.01, .04], $r_{\text{partial}} = .31, p < .002$; Fig. 1A). Simple slopes analyses (Aiken & West, 1991) revealed that psychological pain was positively associated with maximal suicidal ideation ($b = 1.45$, $se = .33$, $t(107) = 4.44, p < .001$) in patients with high IGT score (+ 1 SD), but not in patients with low IGT score (- 1 SD) ($b = .02$, $se = .28$, $t(107) = .08, p < .937$). No significant interaction was found with physical pain ($p > 0.05$).

Similarly, there was a significant effect of the psychological pain (maximal) \times IGT interaction ($\beta = .02$, CI95: [.003, .037], $r_{\text{partial}} = .24, p < .018$) for the prediction of suicidal ideation (BDI item). Simple slopes analyses revealed that psychological pain was positively associated with maximal suicidal ideation when IGT score was high (+ 1 SD) ($b = .818$, $se = .346$, $t(94) = 2.37, p < .018$), but not when low (- 1 SD) ($b = -.307$, $se = .239$, $t(94) = -1.29, p < .199$). No significant interaction with physical pain or current psychological pain was found ($p > 0.05$).

Suicide attempt prediction by pain and moderation by decision-making

Maximal psychological pain was positively associated with recent suicide attempt ($\beta = .13$, CI95: [.09, .75], $r_{\text{partial}} = .29, p < .013$). Suicide attempt prediction using regression models with current or maximal physical or psychological pain as predictor, IGT as moderator and sex, alcohol/drug abuse and eating disorder as covariates did not find any significant interaction between physical or psychological pain and IGT to predict suicide attempt ($p > 0.05$) (Table 3).

Depression prediction by pain and moderation by decision-making

Significant positive relationships with current psychological pain ($\beta = .38$, CI95: [.62, 1.81], $r_{\text{partial}} = .39, p < .001$), and the physical pain (current) \times IGT interaction ($\beta = -.33$, CI95: [-.05, -.01], $r_{\text{partial}} = -.30, p < .004$; Fig. 1B) were found when using BDI total score as predicted variable. Simple slopes analyses revealed that current physical pain was positively associated with depression ($b = 1.05$, $se = .35$, $t(95) = 2.99, p < .005$) in the case of low IGT (- 1 SD), but not of high IGT index (+ 1 SD) ($b = -.67$, $se = .42$, $t(95) = -1.58, p < .118$). No significant interaction was found between maximal physical or psychological pain ($p > 0.05$) and IGT for depression.

Discussion

Our results help to understand the relationships between suicidal ideation/act and physical/psychological pain in patients with depression. Maximal psychological pain was associated with depression, suicidal ideation and recent suicide attempt. Moreover, decision-making could act as a modulator in these associations. Indeed, patients with higher IGT index and higher maximal psychological pain had higher suicidal ideation. These results were obtained by using two ways of measuring suicidal ideation (numerical scale and BDI item) to increase reliability. Conversely, the decision-making and psychological pain relationship did not predict depression levels, showing that this relationship is an exclusive feature of suicidal ideation. On the other hand, depression scores were higher in patients with lower IGT index

and higher current physical pain. This suggests that suicidal ideation and depression are predicted by different kinds of pain, when considering IGT moderation effect.

The positive relationships between suicidal ideation/act and psychological pain is now acknowledged (4,10,11). Our results strengthen the hypothesis that psychological pain is a core variable of the suicidal process, particularly suicidal ideation. It has been demonstrated that in suicidal patients, emotional regulation is impaired (12), and this could contribute to psychological pain. In agreement, two psychophysiological markers of emotion regulation (the frontal delta power and the low-frequency band of heart rate variability) are negatively related with psychological pain (38-39) and high suicidal desire, but not with low suicidal desire (40). Our results suggest that the quality of decision-making influences the emergence of suicidal ideation, but not of suicidal acts in the context of high psychological pain. However, contrary to our hypothesis, participants with higher IGT index (more conservative decision-making) and higher psychological pain had higher suicidal ideation. Better IGT performance has been related to lower cortisol levels in response to psychosocial stress (16), showing that decision-making is a coping resource and a potential indicator of better emotional regulation. We could hypothesize that suicidal ideation is a problem-focused coping strategy in which active steps are taken to remove or circumvent the stressor and that increases tolerance of psychological pain.

Interestingly, our study did not find any interaction between decision-making and psychological pain for predicting suicidal act. These results are in agreement with the hypothesis that suicidal ideation and suicidal act are two different components of suicidal behaviour (42). Many of individuals who think about suicide do not attempt suicide; however, having suicidal ideation is a necessary previous step to commit suicide (43). The individual ability to bear psychological pain (19,20) and to have good decision-making (21) could explain why only some people will engage in suicidal behaviour. Indeed, it was reported that patients who never attempted suicide have higher tolerance to psychological pain and higher ability to cope with psychological pain than those who committed suicide (45). Also, suicidal ideators have better decision-making abilities than suicide attempters (23). Like non-suicidal self-injury, which contributes to regulate emotions and to get relief from intolerable thoughts (24), suicidal ideation could be a mechanism of psychological pain relief in patients who are vulnerable to suicide. Consequently, people with better decision-making performance could use suicidal ideation to get relief from psychological pain, without progressing from suicidal ideation to suicidal act.

Impulsivity could help to explain the differences between suicide ideators and attempters. The IGT is a measure of decision-making that compare more conservative decisions and riskier or more impulsive decisions (choosing the disadvantageous decks) (48). Low IGT scores are usually related to real-life decisions linked to impulsivity, such as alcohol or drug abuse and gambling disorders (26). The self-destructive responses of suicidal attempters come from the predominance of automatic responses (27). Impulsivity could be implicated in the capability to attempt suicide (28). In our study, patients with higher IGT index (more conservative decision-making) were more prone to have suicidal ideation, but not acts. The decision to commit suicide or not comes in a precarious state of decision-making about life characterized by high psychological pain levels (29), where having a more conservative decision-making approach would be an advantage.

Finally, the interaction between current physical, but not psychological pain and decision-making predicted the level of depression. Chronic physical pain and depression are often comorbid (30,31) and share common neurobiological mechanisms (32). At the cognitive level, impairments of cognitive control and reward-related decision-making have been reported in patients with depression (33–36) and with chronic pain (37). In our study, the presence of physical pain in patients with low IGT index (decision-making focused on short-term rewards)

was associated with higher depression scores. As a possible explanation, poor decision-making might lead to maladaptive behaviours (e.g., poor treatment adherence (38), affective conflicts (39)) that could enhance depression or physical pain. Moreover, having poor decision-making could participate in pain catastrophizing, known to intensify the experience of pain and depression (40,41).

A limitation of our study is the absence of information about the presence of chronic pain comorbid with the affective disease. Moreover, assessments were done during hospitalization, thus in a different context than the climax of the suicidal or affective crisis. However, self-reported data on the climax of suicidal/affective crisis were collected retrospectively. Memory bias and treatments could have affected the patient's perception of pain or suicidal ideation, leading to less reliable scores.

In conclusion, decision-making interacts in the relationship of suicidal ideation and physical and psychological pain. Decision-making focused on long-term rewards (high IGT index) seems to be more adaptive. Indeed, better decision-making increases the probability of suicidal ideation, but not of suicide acts in a context of high psychological pain. These patients could get relief from pain without attempting suicide. Conversely, poor decision-making increases the probability of higher depression scores in the context of physical pain, two suicide risk factors. Interventions on impaired executive functions in patients with depression might help improving suicide prevention.

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Online supplementary material Table 1:

Table 1: Comparison of demographic and clinical variables, pain, decision-making, suicidal ideation and depression in patients classified according to the median IGT index (Low/High) or Suicide attempt (Past/Current/No)

Variable	Iowa Gambling Task			Suicide Attempt			<i>p</i> value
	Low < -2	High > -2	<i>p</i> value	No	Past	Current	
N =	55	57		41	33	44	
Age (years)	38.51 ± 1.60	40.51 ± 1.77	NS	40.51 ± 1.94	42.06 ± 2.15	37.14 ± 1.86	NS
Study level (years)	19.46 ± 3.11	15.04 ± 1.67	NS	15.77 ± 2.23	19.09 ± 3.19	16.63 ± 2.82	NS
BMI score	23.79 ± .68	24.43 ± .66	NS	23.92 ± .53	25.50 ± .83	23.06 ± .75	NS
NART score	21.04 ± .69	21.05 ± .64	NS	20.13 ± .91	21.41 ± .85	21.21 ± .78	NS
Medication load	3.58 ± .25	3.88 ± .25	NS	3.71 ± .29	4.09 ± .32	3.50 ± .28	NS
Women, n (%)	42 (76.4)	33 (57.9)	<i>P</i> < .04	22 (53.7)	27 (81.8)	29 (65.9)	<i>P</i> < .04
Family history of psychiatric disorder, n (%)	42 (82.4)	42 (77.8)	NS	32 (80.0)	26 (86.7)	31 (77.5)	NS
Current smoking, n (%)	7 (13.0)	6 (10.5)	NS	4 (10.0)	4 (12.1)	5 (11.4)	NS
Substance/Alcohol misuse, n (%)	21 (39.6)	19 (33.3)	NS	10 (25.0)	12 (36.4)	21 (48.8)	NS
Anxiety disorder, n (%)	32 (63.5)	34 (59.6)	NS	27 (67.5)	23 (69.7)	21 (50.0)	NS
Bipolar disorder, n (%)	20 (39.2)	24 (42.1)	NS	16 (40.0)	18 (54.5)	13 (31.7)	NS
Eating disorder, n (%)	11 (23.9)	9 (16.7)	NS	3 (8.3)	11 (33.3)	8 (21.6)	<i>P</i> < .04
Suicide attempt, n (%)	37 (67.3)	34 (59.6)	NS	–	–	–	–
Number of suicide attempts	1.96 ± .47	1.61 ± .28	NS	–	2.44 ± .55	3.21 ± .45	NS
Suicidal ideation current	2.94 ± .49	2.47 ± .40	NS	2.09 ± .51	3.33 ± .57	2.65 ± .49	NS
Suicidal ideation maximum	5.85 ± .53	5.91 ± .52	NS	4.34 ± .57	5.18 ± .62	7.98 ± .54	<i>P</i> < .001
BDI suicidal item	1.09 ± .16	1.11 ± .13	NS	.84 ± .17	1.22 ± .18	1.28 ± .16	NS
BDI total	19.41 ± 1.10	17.69 ± .99	NS	17.71 ± 1.29	21.17 ± 1.37	18.39 ± 1.21	NS
Psychological pain current	6.71 ± .33	6.18 ± .31	NS	6.22 ± .39	7.21 ± .41	6.21 ± .36	NS
Psychological pain maximum	8.58 ± .26	8.35 ± .24	NS	7.90 ± .35	8.61 ± .31	8.98 ± .27	<i>P</i> < .02
Physical pain current	3.21 ± .41	2.89 ± .37	NS	2.88 ± .47	3.67 ± .52	2.96 ± .45	NS
Physical pain maximum	5.25 ± .46	4.78 ± .46	NS	4.71 ± .55	5.31 ± .62	5.18 ± .53	NS
IG index	-17.38 ± 1.62	26.81 ± 2.59	<i>P</i> < .001	6.97 ± 4.54	5.82 ± 4.69	1.86 ± 4.07	NS

BMI = Body Mass Index, NART = National Adult Reading Task, BDI = Beck Depression Inventory, IGT = Iowa Gambling Task

Online supplementary material Table 2:

Table 2: Pearson correlations of variables for regression analyses

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Suicidal ideation, current	—													
2. Suicidal ideation, maximal	.50***	—												
3. Suicidal desire (BDI score)	.52***	.42***	—											
4. BDI total score	.47***	.18	.52***	—										
5. Number of suicide attempts	.23*	.22*	.23*	.13	—									
6. Psychological pain, current	.36**	.11	.16	.39***	.10	—								
7. Psychological pain, lifetime	.16	.37***	.11	.18	.11	.13	—							
8. Physical pain, current	.27**	-.03	.01	.12	.09	.40***	-.01	—						
9. Physical pain, lifetime	.21*	.09	.01	.12	.03	.16	.23**	.69***	—					
10. IGT index	-.08	.09	.12	.01	-.09	-.05	.01	-.09	-.11	—				
11. Age	-.01	-.19*	.02	.05	-.03	.06	-.25**	.22*	.09	-.04	—			
12. NART	.12	.21*	.25*	.22*	.04	.05	.34***	-.19*	-.04	.01	-.01	—		
13. Years of study	.08	.16	.13	.09	-.12	.05	.08	.07	.09	-.07	.01	.19*	—	
14. Medication load	-.09	-.18	-.12	.09	-.05	.21*	.07	.03	.13	.03	-.05	.07	.19*	—

* p < .05.

** p < .01.

*** p < .001

BDI = Beck Depression Inventory, IGT = Iowa Gambling Task, NART = National Adult Reading Task, Medication load = psychotropic drugs

Online supplementary material Table 3:

Table 3: Multiple regression models of the Pain (physical or psychological) × IGT interactions predicting suicidal ideation, suicide attempts or depression:

<i>Current suicidal ideation</i>													
Current Psychol. Pain	<i>B</i>	β	<i>t</i> (102)	<i>p</i>	<i>r</i> _{partial}	95% CI	Current Physical Pain	<i>B</i>	β	<i>t</i> (103)	<i>p</i>	<i>r</i> _{partial}	95% CI
BDI total score	.16	.38	4.25	.001	.47	(.09, .24)	BDI total score	.18	.41	4.67	.001	.43	(.10, .25)
Psychological pain	.19	.14	1.53	.130	.30	(-.06, .44)	Physical pain	.07	.07	.77	.445	.08	(-.12, .26)
IGT	-.01	-.05	-.63	.527	-.06	(-.03, .01)	IGT	-.01	-.07	-.74	.458	-.08	(-.03, .01)
Pain × IGT^a	.002	.05	.63	.532	.06	(-.01, .01)	Pain × IGT ^a	-.003	-.06	-.62	.534	-.06	(-.01, .01)
<i>Maximum suicidal ideation</i>													
Max. Psychol. Pain	<i>B</i>	β	<i>t</i> (107)	<i>p</i>	<i>r</i> _{partial}	95% CI	Max. Physical Pain	<i>B</i>	β	<i>t</i> (106)	<i>p</i>	<i>r</i> _{partial}	95% CI
Age	-.03	-.11	-1.19	.235	-.12	(-.09, .02)	Age	-.06	-.02	-2.04	.044	-.20	(-.12, -.002)
NART	.04	.06	.58	.564	.06	(-.11, .19)	NART	.17	.05	2.22	.029	.22	(.02, .33)
Psychological pain	.74	.34	3.55	.001	.33	(.33, 1.15)	Psychological pain	.13	.11	1.15	.253	.12	(-.09, .34)
IGT	.01	.06	.60	.549	.07	(-.02, .03)	IGT	.02	.10	1.14	.258	.11	(-.01, .04)
Pain × IGT^a	.03	.33	3.23	.002	.31	(.01, .04)	Pain × IGT ^a	-.003	-.07	-.71	.477	-.07	(-.01, .01)
<i>Suicide attempt (Current vs. No attempt)</i>													
Current Psychol. Pain	<i>B</i>	β	<i>t</i> (72)	<i>p</i>	<i>r</i> _{partial}	95% CI	Current physical pain	<i>B</i>	β	<i>t</i> (73)	<i>p</i>	<i>r</i> _{partial}	95% CI
Sex	.46	.11	.88	.381	.10	(-.56, 1.48)	Sex	.28	.07	.56	.578	.07	(-.71, 1.27)
Eating disorders	1.33	.29	1.70	.089	.21	(-.20, 2.86)	Eating disorders	1.10	.25	1.45	.147	.17	(-.39, 2.59)
Psychological pain	-.10	.05	-.92	.359	-.09	(-.32, .12)	Physical pain	-.02	-.01	-.28	.783	-.02	(-.19, .15)
IGT	-.01	-.08	-1.06	.289	-.15	(-.03, .01)	IGT	-.01	-.07	-1.14	.254	-.14	(-.03, .01)
Pain × IGT^a	-.01	-.11	-1.61	.107	-.19	(-.02, .002)	Pain × IGT ^a	-.004	-.08	-1.19	.234	-.14	(-.01, .003)
Max. Psychol. Pain	<i>B</i>	β	<i>t</i> (73)	<i>P</i>	<i>r</i> _{partial}	95% CI	Max. physical pain	<i>B</i>	β	<i>t</i> (73)	<i>p</i>	<i>r</i> _{partial}	95% CI
Sex	.33	.08	.62	.534	.08	(-.72, 1.39)	Sex	.36	.09	.70	.482	.08	(-.64, 1.36)
Eating disorders	.91	.18	1.16	.245	.13	(-.63, 2.45)	Eating disorders	.94	.21	1.26	.209	.15	(-.53, 2.41)
Psychological pain	.42	.13	2.48	.013	.29	(.09, .75)	Physical pain	.04	.04	.54	.586	.07	(-.09, .18)
IGT	-.02	-.07	-1.36	.173	-.14	(-.04, .01)	IGT	-.01	-.05	-.93	.351	-.11	(-.03, .01)
Pain × IGT^a	.02	.11	1.71	.087	.21	(-.002, .03)	Pain × IGT ^a	-.002	-.04	-1.26	.488	-.08	(-.01, .004)

Beck Depression Inventory													
Current Psychol. Pain	<i>B</i>	β	<i>t</i> (94)	<i>p</i>	<i>r</i> _{partial}	95% CI	Current physical pain	<i>B</i>	β	<i>t</i> (95)	<i>p</i>	<i>r</i> _{partial}	95% CI
NART	.28	.18	1.84	.067	.19	(-.02, .58)	NART	.36	.23	2.34	.021	.24	(.06, .67)
Psychological pain	1.22	.38	4.07	.001	.39	(.62, 1.81)	Physical pain	.19	.10	.72	.471	.10	(-.33, .71)
IGT	.01	.02	.21	.831	.03	(-.05, .06)	IGT	-.01	-.06	-.28	.782	-.06	(-.06, .05)
Pain × IGT^a	.01	.04	.46	.644	.05	(-.02, .03)	Pain × IGT^a	-.03	-.33	-2.99	.004	-.30	(-.05, -.01)
Max. Psychol. Pain	<i>B</i>	β	<i>t</i> (95)	<i>p</i>	<i>r</i> _{partial}	95% CI	Max. physical pain	<i>B</i>	β	<i>t</i> (94)	<i>p</i>	<i>r</i> _{partial}	95% CI
NART	.23	.11	1.33	.185	.14	(-.11, .57)	NART	.35	.22	2.18	.032	.23	(.03, .67)
Psychological pain	.62	.11	1.41	.162	.14	(-.25, 1.49)	Physical pain	.26	.13	1.13	.260	.13	(-.19, .70)
IGT	-.004	-.01	-.17	.864	-.02	(-.06, .05)	IGT	.004	.01	.16	.876	.01	(-.05, .06)
Pain × IGT^a	.02	.13	1.34	.268	.12	(-.02, .05)	Pain × IGT ^a	-.01	-.09	-.79	.430	-.08	(-.03, .01)

B = unstandardized regression coefficients. β = standardized regression coefficients.

^a Interaction term computed from the mean centred predictors

NART = National Adult Reading Test; IGT = Iowa Gambling Task; BDI = Beck Depression Inventory