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## **INDIVIDUAL DIFFERENCES IN INTERPERSONAL SECURITY PREDICT SUICIDAL IDEATION AND PROBLEM GAMBLING**

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What is interpersonal security?

What is suicidal ideation?

What is problem gambling?

Why are the results of this research study relevant for clinical practice?

# 1. Brief Glossary 1/2

**BEING PERSONALLY SECURE:** feeling safe, mentally and physically

**LACK OF PERSONAL SECURITY:** a person feels vulnerable and at risk

**INTERPERSONAL SECURITY:** feeling personally secure, mentally and physically, as a result of how a person relates to other people

(Margaret S. Clark et al., 2015)

# 1. Brief Glossary 2/2

**SUICIDAL IDEATION:** thinking about, considering, or planning to commit suicide

(Klonsky, May, & Saffer, 2016)

**PROBLEM GAMBLING:** early stage of experiencing intense and frequent urges to gamble despite harmful negative consequences or desire to stop (Bickel, Jarmolowicz, Mueller, Koffarnus, & Gatchalian, 2012, p. 291)

**BUT**

not meeting the diagnostic criteria of pathological/disordered gambling (Loo, Raylu, & Oei, 2008; Raylu & Oei, 2002; Rosenthal, 1989)

## 2. What we found out

- People who **feel secure** in their relationships with others are less likely to have suicidal thoughts or behaviours and problem gambling
- **No direct link** between problem gambling and suicidal ideation

### 3. Contribution to clinical practice

- Interpersonal security is a **key topic** both in the treatment of patients with suicidal ideation and problem gambling
- Improving those patients' view of themselves and others could support them in **coping** and **overcoming** suicidal ideation and problem gambling

## 4. Where did we start from? 1/4

**DISORDERD/PROBLEM GAMBLING:** **growing phenomena** in Italy, both among **adults** and **adolescents** (Donati, Chiesi, & Primi, 2013; Osservatorio Del Gioco Online, 2017a, 2017b, 2017c; Villella et al., 2011)

**SUICIDALITY AND PROBLEM GAMBLING:** **two major global health issues** (World Health Organisation, 2014, 2018)

**RELATION BETWEEN SUICIDAL IDEATION AND PROBLEM GAMBLING** (Bischof et al., 2015; Blaszczynski & Farrell, 1998; Iliceto et al., 2016; Ronzitti et al., 2017; Testa et al., 2017a; Testa et al., 2017b) **and higher suicide mortality in pathological/disordered gamblers** compared to the rest of the population (Karlsson & Håkansson, 2018; Manning et al., 2015; Thon et al., 2014; Wardle, Dymond, John, & Mcmanus, 2019)

## 4. Where did we start from? 2/4

### THE INTERPERSONAL-PSYCHOLOGICAL THEORY OF SUICIDE

#### INDIVIDUALS' PERCEPTION OF SECURITY IN INTERPERSONAL RELATIONSHIPS

is a **protective factor** against hopelessness, suicidal ideation and suicidal behavior (Joiner, 2005; Joiner et al., 2009; Joiner, Buchman-schmitt, & Chu, 2017; Tucker et al., 2018; Van Orden et al., 2010)

**THE SIMULTANEOUS OCCURRENCE** of two interpersonal-psychological states, namely **PERCEIVED BURDENSOMENESS** and **THWARTED BELONGINGNESS**, predicts suicidal ideation (Joiner Et Al., 2009; Joiner at al., 2017)



## 4. Where did we start from? 3/4

### THE INTERPERSONAL-PSYCHOLOGICAL THEORY OF SUICIDE

**PERCEIVED BURDENSOMENESS** - “the view that one's existence burdens family, friends, and/or society” (Joiner et al., 2009)

**THWARTED BELONGINGNESS** - “the experience that one is alienated from others, not an integral part of a family, circle of friends, or other valued group” (Joiner et al., 2009)

**NO PRIOR STUDIES** have attempted to investigate suicidality in problem gamblers using the Interpersonal-psychological Theory of Suicide

## 4. Where did we start from? 4/4

### PROTECTIVE FACTORS

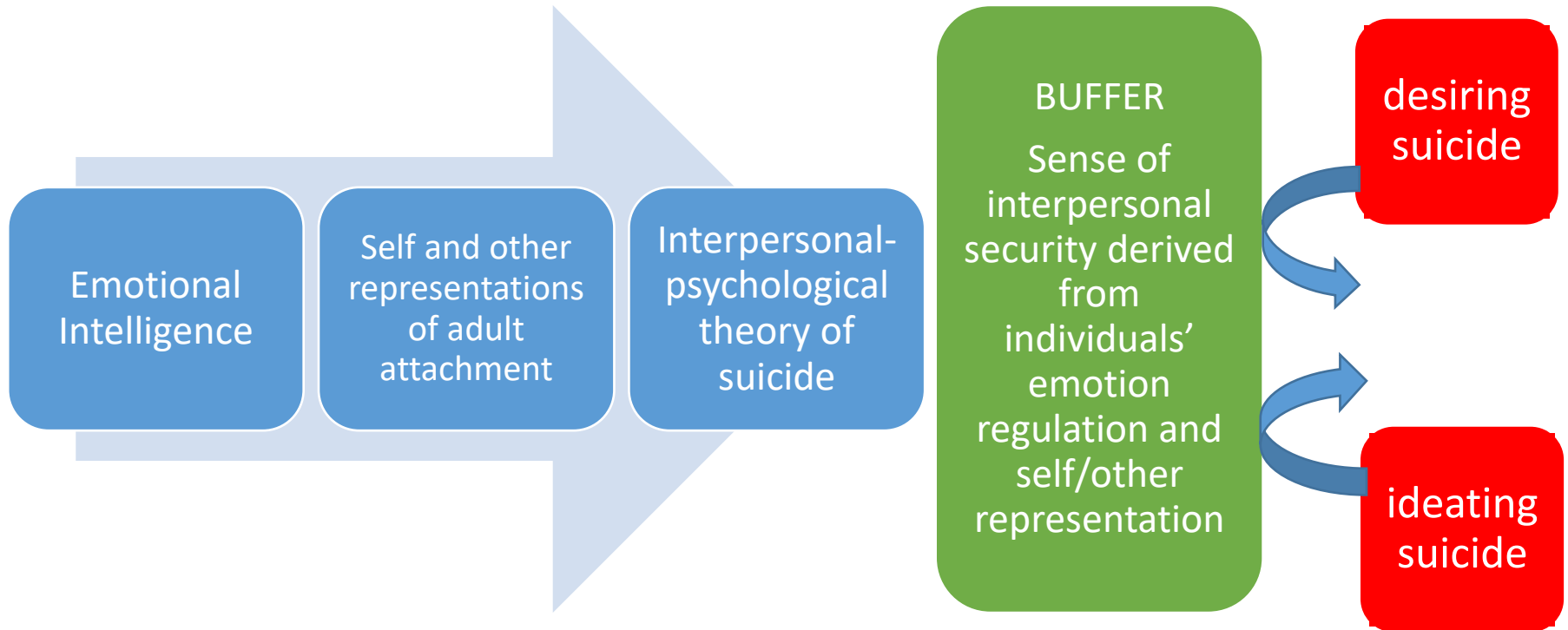
**EMOTIONAL INTELLIGENCE** (Petrides & Furnham, 2001; Petrides, Pita, & Kokkinaki, 2007; Wong & Law, 2002)

AND

**SELF AND OTHER REPRESENTATIONS OF ADULT ATTACHMENT** (Ainsworth, 1989; Bowlby, 1969; Candilera, 2007)

**PROTECT** individuals from the risk of suicidal ideation and problem gambling

# 4. Where did we start from? 4/4



# 4. Where did we start from? 4/4

## PROTECTIVE FACTORS

**EMOTIONAL INTELLIGENCE** (Petrides & Furnham, 2001) - “a constellation of traits” and emotional self-perceptions

- **TRAIT EMOTIONAL INTELLIGENCE** - measured through self-reports
- **ABILITY EMOTIONAL INTELLIGENCE** - measured through maximum performance tests

The trait emotional intelligence model proposed by Wong and Law (2002; Law, Wong, & Song, 2004) – multidimensional construct, including:

- (1) self-emotional appraisal
- (2) others' emotion appraisal
- (3) use of emotion
- (4) regulation of emotions

**The *Wong and Law Emotional Intelligence Scale*** (Wong & Law, 2002) self-report instrument

# 4. Where did we start from? 4/4

## PROTECTIVE FACTORS

**SELF AND OTHER REPRESENTATIONS OF ADULT ATTACHMENT** are internalized models of self and others developing **through early childhood interactions with caregivers**

**KEY INFLUENCE** on the development of individuals' attachment style, emotional regulation, and overall interpersonal functioning across the lifespan (Ainsworth, 1989; Fino et al., 2014; Gallo, Smith, & Ruiz, 2003)

## RISK FACTORS

**Negative self and other representations** predict suicidal ideation (Boroujerdi et al., 2019; Fino et al., 2014; Goodman et al., 2018) and problem gambling (Illiceto Et Al., 2016; Keough et al., 2018)

# 5. Aims of the study

We aimed to test the following hypotheses:

1. emotional intelligence and self and other representations of adult attachment combine into a latent factor representing **interpersonal security**
2. interpersonal security **negatively predicts** problem gambling and suicidal ideation (the latter defined from an interpersonal-psychological perspective);
3. problem gambling **positively predicts** suicidal ideation

## 6. How we proceeded

Participants recruited from May 2018 to January 2019 in 2 non-randomly selected Italian regions that are highly representative of the demographic and socio-economic background of Italy:

**Lombardia and Lazio**

Two interviewers (professional psychologists trained on the research protocol) approached potential participants individually, face-to-face, in public places as universities, parks, shops, senior centres, markets, banks, and post offices

## 6. How we proceeded

**READ/ACCEPT/SIGN WRITTEN INFORMED CONSENT** (the study procedure was reviewed and **approved by an internal ethical committee** – *Declaration of Helsinki* compliant)

**INCLUSION CRITERION:** to have gambled at least **more than once in the past 6 months**, even if just occasionally

**EXCLUSION CRITERION:** the **inability to speak and read Italian**  
Those who met both inclusion and exclusion criteria were then administered a number of paper-and-pencil self-report measures

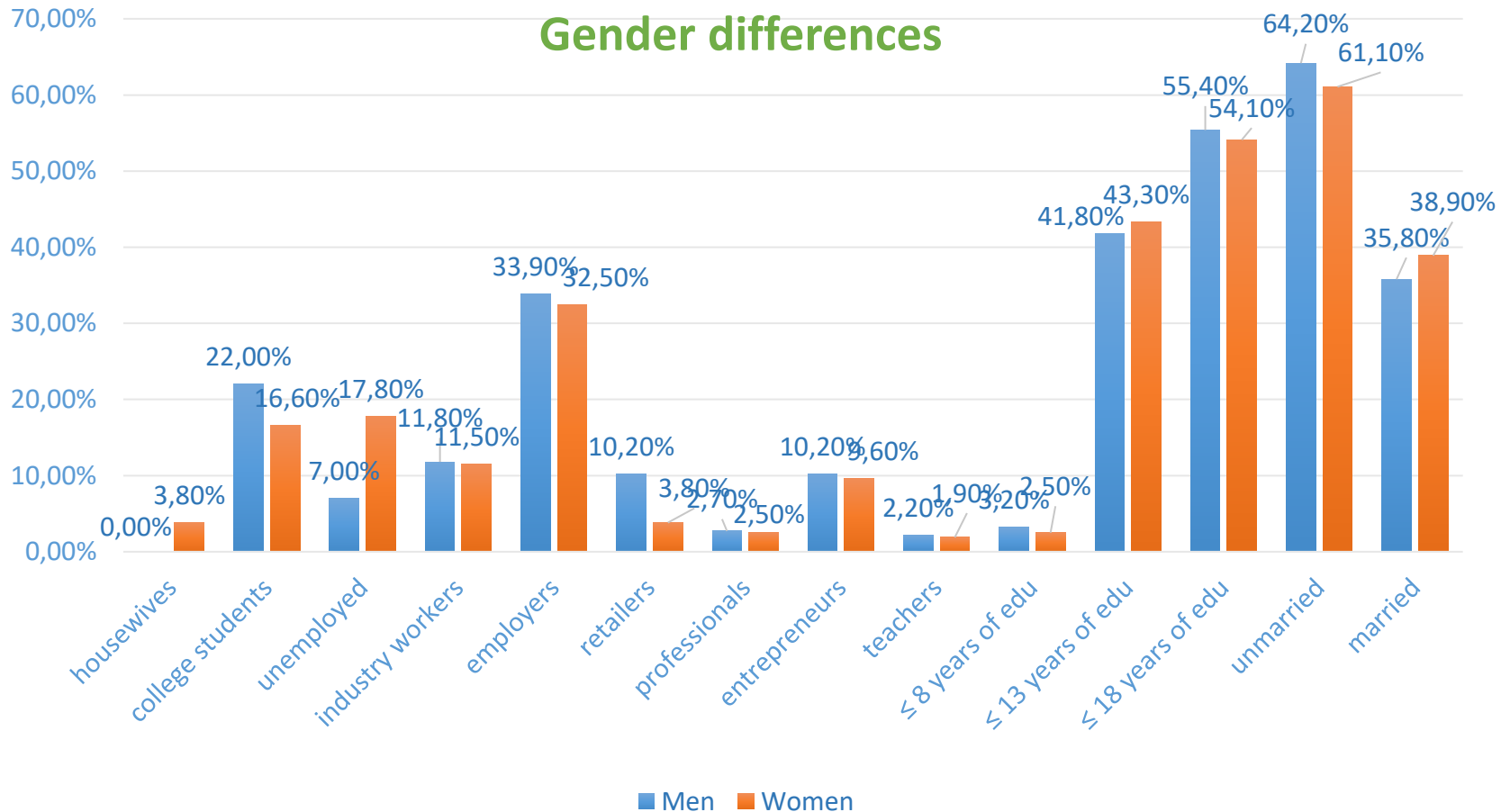


## 6.1. Participants 1/2

Overall, **343** out of 417 individuals agreed to participate, completed the study procedure, and were included in the study

**157** women (45.8%) and **186** men (54.2%), with age comprised between 18 and 61 years ( $m = 30.9$ ,  $sd = 9.7$ ), coming from various educational and socio-economic backgrounds

# 6.1. Participants 2/2



**No gender differences:** years of education, marital status and age (men's  $M = 31.5$ ;  $SD = 9.7$ ; women's  $M = 30.1$ ;  $SD = 9.6$ )

## 6.2. Measures – Interpersonal Security

**WONG AND LAW EMOTIONAL INTELLIGENCE SCALE** (Wleis: Wong & Law, 2002), **ITALIAN VER.** (Iliceto & Fino, 2017), to measure trait EI. the WLEIS consists of 16 items, measuring four sub-dimensions of ei: (1) self-emotional appraisal; (2) others' emotion appraisal; (3) use of emotion; (4) regulation of emotions

**9 ATTACHMENT PROFILE** (9AP: Candilera, 2007) - semi-projective test assessing the quality of interpersonal relationships based on Bowlby's (1969) model of elf and ther representations and internal working models of attachment

## 6.2. Measures – Suicidal Ideation

**INTERPERSONAL NEEDS QUESTIONNAIRE-15** (INQ-15: Van Orden, Cukrowicz, Witte, & Joiner, 2012), **ITALIAN VER.** (Iliceto et al., 2020) - 15-item self-report measure of individuals' current beliefs and experiences regarding their interpersonal needs

**BECK DEPRESSION INVENTORY-II** (BDI-II: Beck, Steer, & Brown, 1996), **ITALIAN VER.** (Ghisi, Flebus, Montano, Sanavio, & Sica, 2006) - 21-item self-report measure of symptoms of depression, assessing the severity of depressive symptoms and suicidal ideation (Lotito & Cook, 2015). BDI-II scores range between 0 and 63

**BECK HOPELESSNESS SCALE** (BHS: Beck & Steer, 1988), **ITALIAN VER.** (Pompili et al., 2009) - 20-item self-report scale developed to operationalize the construct of hopelessness, considered as a proxy of suicidal ideation (Fino et al., 2014)

**BECK SCALE FOR SUICIDE IDEATION** (BSS: Beck & Steer, 1991) - 21-item self-report scale assessing the severity of suicidal ideation and behavior. Only the first 19 items are scored to measure suicidal ideation, whilst the last 2 items are designed to capture the individual's history of suicide attempts

## 6.2. Measures – Problem Gambling

### **SOUTH OAKS GAMBLING SCREEN** (Sogs: Lesieur & Blume, 1987), **ITALIAN VER.**

(Capitanucci & Carlevaro, 2004) - 20-item questionnaire assessing problem gambling and probable pathological gambling. Investigates disadaptive behaviors associated with gambling

### **GAMBLING-RELATED COGNITIONS SCALE** (GRCS: Raylu & Oei, 2004b), **ITALIAN VER.**

(Illiceto et al., 2015) - 23-item self-report questionnaire designed to assess gambling-related cognitions, including irrational beliefs: (1) gambling expectancies; (2) illusion of control; (3) predictive control; (4) perceived inability to stop gambling; (5) interpretative bias

**GAMBLING URGE SCALE** (GUS: Raylu & Oei, 2004A), **ITALIAN VER.** (Illiceto, Fino, & Schiavella, 2019) - 6-item self-report measure assessing individuals' gambling urges. Higher scores indicate a higher urge to gamble

**GAMBLING FUNCTIONAL ASSESSMENT - REVISED** (GFA-R: Weatherly, Miller, & Terrell, 2011; Weatherly, Miller, Montes, & Rost, 2012), **ITALIAN VER.** (Illiceto Et Al., 2018). 16-item self-report instrument designed to measure 2 main functions of gambling, namely **positive reinforcement** and **escape**

## 6.3. Statistical Analyses

- Cronbach's alpha to evaluate the *reliability* of all measures used in the study.
- Chi square  $\chi^2$  tests with yates' correction for *categorical variables*
- Student's t-test to evaluate *gender differences*
- We tested for *multicollinearity* by estimating the Variance Inflation Factor (VIF) through a *multiple regression model*, with all predictors entered simultaneously. Based on previous literature (Stevens, 2002), we considered a VIF > 10 as indicating that multicollinearity affects least squares estimates
- We used *Structural Equation Modelling (SEM)* with maximum likelihood estimation to test the study hypotheses

# 7. Results

- The structural model fit the data well
- Emotional intelligence and self and other representations combine into a common, internally consistent factor of interpersonal security
- The joint effect of interpersonal security and problem gambling explains a significant portion of variance of suicidal ideation (63%)
- The path from interpersonal security to suicidal ideation is significant and high
- The path from problem gambling to suicidal ideation is not significant
- Interpersonal security explains a non-significant portion of the variance of problem gambling (about 16% )

## 8. Discussion 1/4

**HIGHLY INFORMATIVE KNOWLEDGE:** Protecting individuals from the community against the development and maintenance of dramatic conditions such as suicidal ideation and problem gambling

**NEW PERSPECTIVE** onto the development of emotional intelligence and the role of attachment representations in determining adults' perception of security in interpersonal relationships

**DRAMATIC IMPLICATIONS** for future research, prevention, and intervention in suicidality in individuals from the community



## 8. Discussion 2/4

### TWO NOVELTIES

- 1) The **high correlations** observed among measures of **perceived burdensomeness** and **thwarted belongingness** (Interpersonal-psychological theory of suicide) and measures based on Beck's (1976) cognitive “triad” of suicide
- 2) The **high predictive pattern** from **interpersonal security** to **suicidal ideation**

# 8. Discussion 3/4

## REGARDING PROBLEM GAMBLING

Why, on the one hand, interpersonal security significantly and highly explains suicidal ideation, but on the other hand, its contribution to explain problem gambling is low?

**Problem gambling at an early stage** may serve as a form of either **escape** or **positive reinforcement** in non-pathological individuals (Dixon & Johnson, 2007; Weatherly et al., 2011; Weatherly Et Al., 2012),

but it may not activate the motivational system associated to the **need for security in interpersonal relationships**, which on the other hand has a major role in the ideation of suicide and psychopathology (Liotti, 2014)

**The contribution of problem gambling alone to explain suicidal ideation is low**  
Gambling as a problematic behavior in non-clinical adults is not highly associated with depression, hopelessness, perceived burdensomeness and thwarted belongingness

# 8. Discussion 4/4

## STUDIES CONDUCTED IN CLINICAL SAMPLES

- Suicidal gamblers with psychiatric symptoms tend to be **highly suicidal**
- Suicide operates as a **form of escape** from the burden of gambling as an overwhelming, pathological condition (Bischof et al., 2015; Petry & Kiluk, 2002; Ronzitti et al., 2017; Ronzitti, Kraus, Decker, & Ashrafioun, 2019)

## OUR STUDY

- This does not apply when gambling operates at a **non-pathological level**

## FUTURE RESEARCH

A test of the same structural model in clinical populations may lead to different results

# 8. Conclusions 1/2

**Comprehensive model** of relations between interpersonal security, suicidal ideation, and problem gambling in adult individuals from the community

## 3 MAIN IMPLICATIONS

(1) the role of interpersonal security in predicting suicidal ideation, supports the need for **effective prevention, education, and intervention strategies** tackling trait emotional intelligence and self and other representations in the community

(2) **new perspective in the study of suicidal ideation** - key role of interpersonal security, integrating empirically solid theoretical framework such as trait emotional intelligence theory, the attachment theory, and the interpersonal-psychological theory of suicide

## 8. Conclusions 2/2

(3) Weak association between interpersonal security and problem gambling, and between problem gambling and suicidal ideation in individuals from the community, in contraposition to results found previously in clinical samples,

Suggesting the existence of different patterns of risk between those from the community at the early phases of developing gambling as a problematic behavior and those for which gambling represents a diagnosed condition

# 3. Conclusions 2/2

## LIMITATIONS (FURTHER STUDIES NEEDED)

1. All measures are participants' self- reports, with potential implications in terms of acquiescence and social desirability of responses
2. The sample size is limited
3. Robust estimators were not used to address the random dispersion coming from heterogeneous participants
4. We did not test for moderation

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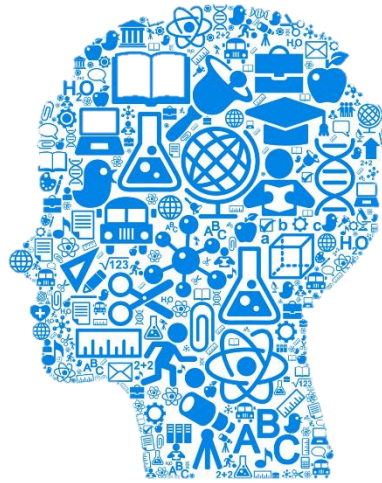
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# THANK YOU FOR THE ATTENTION!



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