

Psychometric Properties of the Revised Inventory of Gambling Motives, Attitudes and Behaviors (GMAB-R)

本地博彩動機、態度與行為量表 – 修改版

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Background

- Chinese gamblers have high gambling involvement and possessing unique gambling-related beliefs like *feng shui*
- Previous research of Chinese gambling often directly translated and employed measurements developed from Western samples
 - Legitimacy of direct application of these scales on Chinese gamblers is questionable (Loo et al. 2008; Raylu and Oei 2004; Oei et al. 2008)

Background

- Chinese-specific measurement tools enhance more accurate understanding of Chinese people's gambling cognitions and behaviors
- **The Inventory of Gambling Motives, Attitudes and Behaviours** (GMAB; Tao et al., 2011) and **revised Inventory of Gambling Motives, Attitudes and Behaviours - Revised** (GMAB-R; Wu et al., in press)
 - The first indigenous inventory to assess the motives, attitudes and behaviors of the general population of Chinese gamblers

Study 1: Development (Tao et al., 2010)

- Conducted comprehensive literature reviews and 6 focus groups → resulted in 110 Chinese items
- All items were administered in a randomly recruited sample of 791 Chinese adult gamblers
- Based on EFA findings,
 - 26, 24, and 20 items for 5 gambling motives, 4 gambling attitudes, and 6 gambling behaviors respectively

GMAB - Motives

- *Self-worth* 自我價值
- *Monetary gains* 金錢收益
- *Sensation seeking* 感覺尋求
- *Boredom alleviation* 緩和厭煩
- *Learning* 學習

GMAB - Attitudes

- *Negative consequences* 賭博惡果
- *Technique* 技巧
- *Superstition* 迷信
- *Fate and luck* 命運和運氣

GMAB - Behaviors

- *Impaired control* 控制力受損
- *Gambling involvement* 賭博參與
- *Arousal reaction* 覺醒反應
- *Superstitious behavior* 迷信行為
- *Controlled gambling* 克制賭博
- *Casino exploration* 賭場探索

Study 2: Validation (Wu et al., 2012)

- Randomly recruited and interviewed **694 Chinese gamblers in Macao**, who had gambled in previous 12 months, on telephone with a questionnaire
 - Gender: 398 men (57.3%) and 296 women (42.7%)
 - Age: 18 to 98 years ($M=36.32$)
 - Educational attainment: tertiary education (19.7%), middle school (63.3%), primary school or lower (16.4%)
 - Type: Social gambling (53.6%), Casino games (31.7%), and lottery (14.1%).
 - Over 40% gambled once or more a month
 - Over 70% spent about US\$124 or less on betting in every gambling occasion

Validation

- Face validity check on original GMAB items
 - Deleted item “wanting to have a try since you just reached the legal age” (因為你年齡夠了，所以嘗試參與賭博)
- Added 3 items for “socialization”
 - Address social motive of gambling (Lam, 2007)

Psychometric properties of GMAB-R

- Factor structure
 - Confirmatory factor analysis with maximum likelihood estimation
 - Considered fit indices, factor loadings and Lagrange multiplier (LM) test findings for model modification
 - Compared the goodness-of-fit of the modified model with the corresponding one-factor model

GMAB-R – Motives (25 items)

- Deleted items “relieving responsibility”, “testing one’s luck”, and “believing a high winning chance”
- The 6-factor model fitted with the Chinese gamblers data adequately (NNFI=.88; CFI=.89; RMSEA =.065):
 1. 6-item *self-worth*: e.g. 賭博可以讓你發揮你的能力 ($\alpha = .79$)
 2. 4-item *monetary gains*: e.g.你因為有東西想買，所以參與賭博 ($\alpha = .75$)
 3. 6-item *sensation seeking*: e.g.賭博令你覺得興奮 ($\alpha = .84$)
 4. 3-item *boredom alleviation*: e.g.你為了消磨時間而參與賭博 ($\alpha = .71$)
 5. 3-item *learning*: e.g.你是為了學會不同遊戲的玩法而賭博 ($\alpha = .66$)
 6. 3-item *socialization*: e.g.你賭係因為可以系放假或者節日同d親戚朋友一齊玩 ($\alpha = .76$)
- 5-point Likert scale:*strongly agree to strongly disagree*

GMAB-R – Attitudes (20 items)

- Removed 2 items (“losing is due to early win” and “losing is more common than winning”)
- The 4-factor model showed an adequate fit with the data (NNFI=.88; CFI=.90; RMSEA=.05):
 1. 7-item *Negative consequences*: e.g.賭博會減少與家人溝通的時間 ($\alpha = .74$)
 2. 6-item *Techniques*: e.g.技術好，贏面會大點 ($\alpha = .80$)
 3. 4-item *Superstition*: e.g.特別的數字、顏色、物件或者衣著可以增加你贏的機會 ($\alpha = .71$)
 4. 3-item *Fate and luck*: e.g.贏輸睇命水 ($\alpha = .53$)
- 5-point Likert scale: *strongly agree to strongly disagree*

GMAB-R – Behaviors (18 items)

- Removed 2-item “casino exploration” factor
- The 5-factor model satisfactorily fitted the data, (NNFI=.92; CFI=.93; RMSEA =.05):
 1. 4-item *impaired control*: e.g. 你會為了賭博而借錢 ($\alpha = .76$)
 2. 6-item *gambling involvement*: e.g. 你會玩好多不同類型的賭博活動 ($\alpha = .75$)
 3. 2-item *arousal reaction*: e.g. 贏錢的時候，你會有很強烈的反應 ($\alpha = .60$)
 4. 3-item *superstitious behaviour*: e.g. 你會收集一些可以增加你贏的機會的特殊物品 ($\alpha = .65$)
 5. 2-item *controlled gambling*: e.g. 你只會賭很小的注碼 ($\alpha = .46$)
- 4-point Likert scale: 1-never to 4-always

Validity of GMAB-R – Gambling Urge

- All factors were significantly and positively correlated with the gambling urge
 - Except controlled gambling ($r = -.06$, $p > .01$) and negative consequences of gambling ($r = -.23$, $p < .001$).
 - People with greater motives, more favourable attitudes, and more gambling behaviours were more likely to report a greater gambling urge

Validity of GMAB-R – DSM-IV diagnostic criteria

- Positive correlations
 - All motivational factors except socialization
 - Favorable attitudes toward the impact of superstition and fate and
 - All behavioral factors except controlled gambling
- Negative correlations
 - Controlled gambling (marginally significant)

Inventory items and user manual is available:
<http://www.umac.mo/psychology/doc/Manual%20of%20GMAB-R.pdf>

Application

- GMAB-R can serve as a valid and reliable assessment tool of diverse Chinese gambling motives, attitudes, and behaviors
- Example: Investigating how some specific gambling attitudes can explain gambling intention and involvement based on the theory of planned behavior (Wu et al., in press)
 - ↑ Attitudes toward technique & superstitions →
↑ intention and involvement

References

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