

青少年回避与融合问卷(简版)的信效度分析

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【摘要】 目的:考察中文版青少年回避与融合问卷(简版)(Avoidance and Fusion Questionnaire for Youth, AFQ-Y8)在我国青少年群体中的信效度。**方法:**选取样本一为来自全国32个省级行政区的874名青少年,施测AFQ-Y8中文版和中国中学生心理健康量表(Mental Health Inventory of Middle-school Students, MMHI-60)以检验问卷的结构效度和效标效度;样本二为131名云南某中学初中生,施测AFQ-Y8中文版和接纳与行动问卷第二版(Acceptance and Action Questionnaire—2nd Edition, AAQ-II)以检验问卷的聚合效度,间隔两周后对样本二再次施测以检验重测信度。**结果:**探索性因素分析和验证性因素分析均证实AFQ-Y8为单因素结构。AFQ-Y8得分与MMHI-60总分和各因子得分均呈显著正相关($r=0.38 \sim 0.54, P<0.001$),与AAQ-II得分高度正相关($r=0.75, P<0.001$)。量表的Cronbach α 系数为0.78,重测信度为0.76。**结论:**AFQ-Y8中文版具有良好的信度和效度,可用于测量我国青少年的心理灵活性。

【关键词】 青少年; 心理灵活性; 信度; 效度

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Validity and Reliability of the Chinese Version of the Avoidance and Fusion Questionnaire for Youth(AFQ-Y8)

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【Abstract】 Objective: To examine the validity and reliability of the Chinese version of the Avoidance and Fusion Questionnaire for Youth (AFQ-Y8) in Chinese adolescents. **Methods:** 874 adolescents from 32 different provincial-level administrative regions (Sample 1) were invited to complete AFQ-Y8 and the Mental Health Inventory of Middle-school Students (MMHI-60) to evaluate the construct validity and the criterion validity. 131 students from a junior middle school in Yunnan (Sample 2) were invited to complete AFQ-Y8 and the Acceptance and Action Questionnaire—2nd Edition (AAQ-II) to evaluate the convergent validity. All students from Sample 2 completed the questionnaires again two weeks later to evaluate the test-retest reliability. **Results:** The result of exploratory factor analysis indicated AFQ-Y8 comprised a single factor, accounting for 40.04% of the total variance. The confirmatory factor analysis confirmed that the single-factor model fit well ($\chi^2/df=2.45$, RMR=0.05, GFI=0.97, NNFI=0.93, RFI=0.90, CFI=0.96, IFI=0.96, RMSEA=0.06, NFI=0.93, AGFI=0.95). The scores of AFQ-Y8 were positively correlated with the scores of MMHI-60 ($r=0.38 \sim 0.54, P<0.001$) and AAQ-II ($r=0.75, P<0.001$). The Cronbach's α coefficient was 0.78, and the test-retest reliability was 0.76. **Conclusion:** The Chinese version of the AFQ-Y8 has good reliability and validity and thus could be used as an instrument for assessing the psychological flexibility of Chinese adolescents.

【Key words】 Adolescents; Psychological flexibility; Reliability; Validity

心理灵活性(Psychological Flexibility)是指个体不仅能充分地接触当下所处的外情境,同时能有意识觉察到当下的内在心境(比如记忆、想法、情绪、动机等一切心理活动),最终在自我选择的价值方向

的指引下,坚持或改变行为^[1]。心理灵活性是评估心理健康的重要基石,也是接纳承诺疗法(Acceptance and Commitment Therapy, ACT)干预的核心目标^[2]。ACT作为以正念为核心的认知行为疗法第三浪潮的代表性疗法^[3],已被应用于多种心理疾病的治疗和生理疾病的辅助干预,并取得了明显的效果^[4,5]。其中,ACT在青少年群体中的应用也取得了

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一定的实证研究成果,通过提高心理灵活性,可显著改善青少年在抑郁^[6,7]、创伤后应激症状^[8]、焦虑^[9]等方面的病理症状,并能提高其生命质量^[10],改善社会功能^[11]。

ACT认为经验回避(Experiential Avoidance)和认知融合(Cognitive Fusion)是造成心理灵活性降低的两个相互关联的重要心理过程^[12],其中认知融合是指人们与想法、感受等内心事件纠缠,把想法和感受当做外部事实。认知融合会导致经验回避。经验回避是指人们试图改变内在经验发生的形式或频率,即使这样做会导致行为与自己的目标相背离。经验回避降低了个人灵活应对外界挑战的能力^[13]。

基于心理灵活性的理论,Greco等人首次开发了测量青少年心理灵活性的量表—青少年回避与融合问卷(Avoidance and Fusion Questionnaire for Youth, AFQ-Y)^[14]。包括17个条目(AFQ-Y17)和8个条目(AFQ-Y8)两个版本。问卷得分越高,表明心理僵化水平越高,即心理灵活性水平越低。目前,AFQ-Y已被翻译成多种语言版本并在多种文化背景下进行了信效度检验,研究均表明其符合心理测量学要求^[15-20]。Livheim等人通过对AFQ-Y17和AFQ-Y8同时进行信效度检验,发现AFQ-Y8的心理测量性能并不劣于AFQ-Y17^[19],而AFQ-Y8条目更少,使用起来更经济高效。随着ACT在中国受到越来越多的关注^[21],探索ACT对我国青少年心理行为问题的改善和生命质量的提高逐渐受到重视,而开发适合我国青少年的心理灵活性测评工具已成为一个亟待解决的问题^[22]。

因此,引入AFQ-Y8并进行汉化具有重要意义,将为我国进行青少年心理灵活性相关的研究提供测量和评估工具。

1 对象与方法

1.1 对象

样本一:选取某青少年培训机构北京总部及全国各分部的参训学员[年龄12~20岁,平均年龄(16.94±3.23)岁],共发放纸质问卷1000份,回收问卷890份,其中有效问卷874份。被试来自全国32个省级行政区,为初一至高三的学生,其中男生513人,占58.7%,女生361人,占41.3%。汉族786人,占89.9%,非汉族88人(包括藏族、朝鲜族、达斡尔族、侗族、鄂温克族、怒族、回族、黎族、满族、蒙古族、苗族、畲族、土家族、彝族、壮族等15种少数民族),占10.1%。父亲受教育程度为:初中及以下占24.9%,

高中占21.1%,专科占20.1%,本科占27.3%,硕士及以上占6.5%。母亲受教育程度为:初中及以下占23.7%,高中占20.7%,专科占24.8%,本科占27.7%,硕士及以上占3.1%。家庭月收入5000元及以下占24%,5001元至12000元占48.9%,12001元至30000元占17.9%,30000元以上占9.2%。

样本二:选取云南省红河州某初级中学3个班级学生共142名[年龄14~17岁,平均(15.05±0.64)岁],发放纸质问卷,两周后再次施测。两次问卷都有效的人数为131人,其中男生64名,女生67名。

1.2 工具

1.2.1 青少年回避与融合问卷(Avoidance and Fusion Questionnaire for Youth, AFQ-Y8)^[14] 共8个条目,每个条目采用五级记分:1=完全不符合;2=不符合;3=不确定;4=符合;5=完全符合。问卷得分越高表明心理僵化程度越严重,心理灵活性水平越低。该量表原英文版的内部一致性Cronbach α 系数为0.83。

1.2.2 中国中学生心理健康量表(Mental Health Inventory of Middle-school Students, MMHI-60)^[23] 选用MMHI-60来评估效标效度。MMHI-60共60个条目,包括10个分量表,即:强迫症状、偏执、敌对、人际关系紧张与敏感、抑郁、焦虑、学习压力、适应不良、情绪不平衡和心理不平衡。量表采用五级记分:1=无;2=轻度;3=中度;4=偏重;5=严重。各分量表均分 ≥ 3 或总均分 ≥ 3 作为心理问题阳性划界分。在本研究中MMHI-60的Cronbach α 系数为0.97。

1.2.3 接纳与行动问卷第二版(Acceptance and Action Questionnaire—2nd Edition, AAQ-II)^[24] 选用AAQ-II来评估聚合效度。AAQ-II主要用来测量经验回避,反应个体心理灵活性水平^[25]。量表中文版与原量表一致,只有经验回避一个维度。共7个条目,采用1(从未)~7(总是)7点计分法,总分越高,经验回避程度越高,心理灵活性水平越低。本研究AAQ-II的Cronbach α 系数为0.87。

1.3 统计方法

用SPSS 22.0和AMOS 22.0进行数据处理和统计。将样本一的874份数据随机分为两半,一半($n=437$)进行探索性因素分析,另一半($n=437$)进行验证性因素分析。

2 结果

2.1 条目分析

将样本一($n=874$)按AFQ-Y8总分由高到低排

序,按上下各27%的标准把被试分为高分组和低分组,将量表中每个条目的高分组得分与低分组得分进行独立样本 t 检验,结果显示高分组与低分组在每个条目上的得分差异均有统计学意义。

进一步计算条目与条目及条目与总分之间的相关系数,结果发现,所有条目与条目之间均呈显著正相关($r=0.23 \sim 0.50, P<0.001$),每个条目得分与问卷总分均呈高度正相关($r=0.56 \sim 0.69, P<0.001$)(表1)。

表1 AFQ-Y8中文版各条目与条目及条目与总分之间的相关系数($n=874$)

	1	2	3	4	5	6	7	8
1	1.00							
2	0.26***	1.00						
3	0.25***	0.40***	1.00					
4	0.23***	0.23***	0.33***	1.00				
5	0.27***	0.30***	0.33***	0.27***	1.00			
6	0.26***	0.35***	0.34***	0.33***	0.35***	1.00		
7	0.25***	0.29***	0.25***	0.25***	0.35***	0.50***	1.00	
8	0.25***	0.37***	0.34***	0.34***	0.30***	0.34***	0.34***	1.00
总分	0.56***	0.63***	0.62***	0.59***	0.63***	0.69***	0.66***	0.64***

注:***相关性在0.001上显著(双尾)

2.2 效度分析

2.2.1 结构效度 将样本一($n=874$)随机分成两半,以主成分分析法对随机选取的一半数据($n=437$)进行探索性因素分析。首先进行KMO样本适合性检验和Bartlett球形度检验,结果显示KMO=0.84, Bartlett球形度检验 $\chi^2=727.70, df=28, P<0.01$,说明数据适合做因素分析。经过主成分分析法提取公因子,根据特征值 >1 原则和碎石图显示抽取1个因素最为合适。结果表明,特征值为3.20,累积方差贡献率为40.04%。各条目的因素载荷在0.54~0.70之间(表2)。

表2 AFQ-Y8中文版各条目的因素载荷及公因子方差($n=437$)

条目	因素 载荷	公因子 方差
1.直到我可以感到快乐,我的生活才会好起来	0.54	0.29
2.我的想法和感受让生活一团糟	0.62	0.38
3.我想到的那些与自己有关的、不好的事情一定是真的	0.62	0.39
4.如果我心跳得厉害,那我一定出了什么问题	0.61	0.37
5.只要我感觉不好,我就会停止做那些对我来说重要的事情	0.64	0.41
6.当悲伤的想法出现时,我在学校的表现会变差	0.70	0.49
7.当我心烦时,我无法成为一个称职的朋友	0.66	0.44
8.我害怕自己的感受	0.66	0.44

采用AMOS 22.0软件对随机选取的另一半数据($n=437$)进行验证性因素分析,检验问卷的单因素模型拟合情况,结果显示模型拟合良好($\chi^2/df=2.45, RMR=0.05, GFI=0.97, NNFI=0.93, RFI=0.90, CFI=0.96, IFI=0.96, RMSEA=0.06, NFI=0.93, AGFI=0.95$)。

2.2.2 效标效度 选取MMHI-60作为量表的外部效标,将样本一的AFQ-Y8总分与MMHI-60的总分和10个分量表得分进行Pearson相关分析,结果显示均为显著正相关($r=0.38 \sim 0.54, P<0.001$)。

将AFQ-Y8各条目得分与MMHI-60的总分进行Pearson相关分析,结果显示均为显著正相关($r=0.23 \sim 0.44, P<0.001$)。

2.2.3 聚合效度 将样本二的AFQ-Y8得分与AAQ-II得分进行Pearson相关分析,结果显示为高度正相关($r=0.75, P<0.001$)。

2.3 信度分析

AFQ-Y8量表的内部一致性Cronbach α 系数为0.78,间隔两周的重测信度 $r=0.76$ 。

3 讨 论

本研究结果表明,AFQ-Y8中文版保持8个条目,每个条目均有较高的鉴别力,各条目与条目及条目与量表总分呈显著正相关,表明量表的条目与量表整体有较高的同质性。

本研究的探索性因素分析和验证性因素分析均证明了AFQ-Y8中文版的单因素模型,这与原问卷设计者Greco等人的理论假设和检验结论一致^[14],也与Christodoulou^[15]、Szemenyei^[18]、Livheim^[19]和Renshaw^[20]等人的研究一致。

根据接纳承诺疗法的心理病理模型和治疗模型^[12],心理灵活性与心理健康高度相关。结合本研究被试的年龄特点和AFQ-Y原始问卷的效标变量^[14],本研究选取MMHI-60进行效标效度检验。研究显示AFQ-Y8中文版得分与MMHI-60的总分和各维度得分均呈中度到高度正相关,这表明青少年

心理灵活性与心理健康密切相关,与前人研究一致^[14-20],AFQ-Y8具有较好的效标关联度。

本研究使用AAQ-II对样本二施测,以检验AFQ-Y8的聚合效度。本研究发现,AFQ-Y8得分与AAQ-II得分高度正相关,表明AFQ-Y8具有良好的聚合效度。

本研究中AFQ-Y8中文版的Cronbach α 为0.78,该结果与已有文献研究较为一致。已有研究中,AFQ-Y8的Cronbach α 在0.74~0.90之间^[14-20]。根据吴明隆^[26]对前人关于社会科学研究中量表信度研究的总结,认为Cronbach α 在0.70以上可接受。据此,AFQ-Y8的信度可接受。原问卷设计者Greco提出AFQ-Y8可用于对群体进行测量^[14]。

本研究发现AFQ-Y8间隔两周的重测信度 $r=0.76$,与已有研究的结果较为接近。Livheim等^[19]研究发现,AFQ-Y8间隔两周的重测信度 $r=0.80$,Cederberg等^[17]研究发现,AFQ-Y8的重测信度 $ICC=0.64$ 。

综上所述,AFQ-Y8中文版的信效度符合心理测量学要求,可用于测量我国青少年群体的心理灵活性。

参 考 文 献

- Bond FW, Hayes SC, Barnes-Holmes D. Psychological Flexibility, ACT, and Organizational Behavior. *Journal of Organizational Behavior Management*, 2006, 26(1-2): 25-54
- Hayes SC, Strosahl KD. A practical guide to acceptance and commitment therapy. New York: Springer Verlag, 2004. 59-76
- Yovel I. Acceptance and Commitment Therapy and the New Generation of Cognitive Behavioral Treatments. *Israel Journal of Psychiatry and Related Sciences*, 2009, 46(4): 304-309
- A-Tjak JG, Davis ML, Morina N, et al. A meta-analysis of the efficacy of acceptance and commitment therapy for clinically relevant mental and physical health problems. *Psychotherapy and Psychosomatics*, 2015, 84(1): 30-36
- 陈玥, 祝卓宏. 接纳承诺疗法治疗创伤后应激障碍综述. *中国临床心理学杂志*, 2018, 26(1): 205-208
- Hayes L. Acceptance and Commitment Therapy for the Treatment of Adolescent Depression: A Pilot Study in a Psychiatric Outpatient Setting. *Mindfulness*, 2011, 2(2): 86-94
- Livheim F, Hayes L, Ghaderi A, et al. The Effectiveness of Acceptance and Commitment Therapy for Adolescent Mental Health: Swedish and Australian Pilot Outcomes. *Journal of Child and Family Studies*, 2015, 24(4): 1016-1030
- Woidneck MR, Morrison KL, Twohig MP. Acceptance and Commitment Therapy for the Treatment of Posttraumatic Stress Among Adolescents. *Behavior Modification*, 2014, 38(4): 451-476
- Swain J, Hancock K, Hainsworth C, et al. Mechanisms of change: Exploratory outcomes from a randomised controlled trial of acceptance and commitment therapy for anxious adolescents. *Journal of Contextual Behavior Science*, 2015, 4(1): 56-67
- Wicksell RK, Melin L, Lekander M, et al. Evaluating the effectiveness of exposure and acceptance strategies to improve functioning and quality of life in longstanding pediatric pain—a randomized controlled trial. *Pain*, 2009, 141(3): 248-257
- Gauntlett-Gilbert J, Connell H, Clinch J, et al. Acceptance and values-based treatment of adolescents with chronic pain: outcomes and their relationship to acceptance. *Journal of Pediatric Psychology*, 2013, 38(1): 72-81
- Hayes SC, Luoma JB, Bond FW, et al. Acceptance and commitment therapy: Model, processes and outcomes. *Behavior Research and Therapy*, 2006, 44(1): 1-25
- Hayes SC, Strosahl K, Wilson KG, et al. Measuring experiential avoidance: A preliminary test of a working model. *The Psychological Record*, 2004, 54(4): 553-578
- Greco LA, Lambert W, Baer RA. Psychological inflexibility in childhood and adolescence: development and evaluation of the Avoidance and Fusion Questionnaire for Youth. *Psychological Assessment*, 2008, 20(2): 93-102
- Christodoulou A, Michaelides MP, Karekla M. Greek Version of the Avoidance and Fusion Questionnaire for Youth: Psychometric Evaluation and Gender Multigroup Invariance in Adolescents. *Journal of Psychoeducational Assessment*, 2018, 36(8): 844-849
- Valdivia-Salas S, Martín-Albo J, Zaldivar P, et al. Spanish Validation of the Avoidance and Fusion Questionnaire for Youth (AFQ-Y). *Assessment*, 2017, 24(7): 919-931
- Cederberg JT, Weineland S, Dahl J, et al. A preliminary validation of the Swedish short version of the Avoidance and Fusion Questionnaire for Youth (AFQ-Y8) for children and adolescents with cancer. *Journal of Contextual Behavior Science*, 2018, 10(2): 103-107
- Szemenyei E, Reinhardt M, Szabó E, et al. Measuring Psychological Inflexibility in Children and Adolescents: Evaluating the Avoidance and Fusion Questionnaire for Youth. *Assessment*, (2018-9-9) [2019-3-20]. <https://doi.org/10.1177/1073191118796558>
- Livheim F, Anders T, Bond F W, et al. Psychometric properties of the Avoidance and Fusion Questionnaire for Youth: A psychological measure of psychological inflexibility in youth. *Journal of Contextual Behavior Science*, 2016, 5(2): 103-110

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- services. *American Journal of Geriatric Psychiatry*, 2006, 14 (9): 758-766
- 16 Raue PJ, Meyers BS, Rowe JL, et al. Suicidal ideation among elderly homecare patients. *International Journal of Geriatric Psychiatry*, 2007, 22(1): 32-37
 - 17 Malfent D, Wondrak T, Kapusta ND, et al. Suicidal ideation and its correlates among elderly in residential care homes. *International Journal of Geriatric Psychiatry*, 2010, 25(8): 843-849
 - 18 Shengming Y, Songguo Y. A preliminary study on the suicidal ideation of the elderly in urban nursing homes. *Social Construction*, 2015, 2(3): 48-56
 - 19 Zhan S, Limin W, Tieqiang W. Association study between depression and suicidal ideation in elderly people in apartments. *Journal of Clinical Psychiatry*, 2012, 22(4): 269-272
 - 20 Yujie W, Jun L, Lin S, et al. Investigation on mental health status and suicidal ideation of the elderly in nursing homes in Shanghai downtown area. *Chinese Journal of Health Psychology*, 2018, 26(3): 433-436
 - 21 Yu Q, Yuntao W, Longhui C, et al. Study on the status quo of suicidal ideation of the elderly in a welfare institution in Wuhan. *Chinese Journal of Social Medicine*, 2013, 1:
 - 22 Kang H, Stewart R, Jeong B, et al. Suicidal ideation in elderly Korean population: a two-year longitudinal study. *International Psychogeriatrics*, 2014, 26(1): 59-67
 - 23 Forsell Y, Jorm AF, Winblad B. Suicidal thoughts and associated factors in an elderly population. *Acta Psychiatrica Scandinavica*, 1997, 95(2): 108-111
 - 24 Almeida OP, Draper B, Snowdon J, et al. Factors associated with suicidal thoughts in a large community study of older adults. *British Journal of Psychiatry*, 2012, 201(6): 466-472
 - 25 Wei J, Zhang J, Deng Y, et al. Suicidal ideation among the Chinese elderly and its correlates: a comparison between the rural and urban populations. *International Journal of Environmental Research and Public Health*, 2018, 15(3): pii: E422
 - 26 June KJ. Gender differences in factors affecting suicidal ideation among the Korean elderly. *Journal of the Korea Gerontological Society*, 2013, 33(2): 349-363
 - 27 Vasiliadis H, Gagne S, Preville M. Gender differences in determinants of suicidal ideation in French-speaking community living elderly in Canada. *International Psychogeriatrics*, 2012, 24(12): 2019-2026
 - 28 Eun Kyung Kim. The risk factors of suicidal ideation by age groups among the elderly in Korea. *Korean Journal of Health Promotion*, 2015, 15(2): 54-62
 - 29 Dong XQ, Chen RJ, Wong E, et al. Suicidal ideation in an older US Chinese population. *Journal of Aging and Health*, 2014, 26(7SI): 1189-1208
 - 30 Yen YC, Yang MJ, Yang MS, et al. Suicidal ideation and associated factors among community-dwelling elders in Taiwan. *Psychiatry and Clinical Neurosciences*, 2005, 59(4): 365-371
 - 31 Vanderhorst RK, McLaren S. Social relationships as predictors of depression and suicidal ideation in older adults. *Aging & Mental Health*, 2005, 9(6): 517-525
 - 32 Ekramzadeh S, Javadpour A, Draper B, et al. Prevalence and correlates of suicidal thought and self-destructive behavior among an elderly hospital population in Iran. *International Psychogeriatrics*, 2012, 24(9): 1402-1408

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- 20 Renshaw TL. Screening for Psychological Inflexibility: Initial Validation of the Avoidance and Fusion Questionnaire for Youth as a School Mental Health Screener. *Journal of Psychoeducational Assessment*, 2017, 35(5): 482-493
- 21 曾祥龙, 刘翔平, 于是. 接纳与承诺疗法的理论背景、实证研究与未来发展. *心理科学进展*, 2011, 19(7): 1020-1026
- 22 陈盈, 胡茂荣, 何厚建, 等. 接纳承诺疗法在青少年心理健康促进中的应用与展望. *医学与哲学*, 2017, 38(10B): 70-73
- 23 王极盛, 李焰, 赫尔实. 中国中学生心理健康量表的编制及其标准化. *社会心理科学*, 1997, 4: 15-20
- 24 曹静, 吉阳, 祝卓宏. 接纳与行动问卷第二版中文版测评大学生的信效度. *中国心理卫生杂志*, 2013, 27(11): 873-877
- 25 Bond FW, Hayes SC, Baer RA, et al. Preliminary Psychometric Properties of the Acceptance and Action Questionnaire-II: A Revised Measure of Psychological Inflexibility and Experiential Avoidance. *Behavior Therapy*, 2011, 42(4): 676-688
- 26 吴明隆. 问卷统计分析实务: SPSS 操作与应用. 重庆: 重庆大学出版社, 2010. 109

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