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综述

## 新型冠状病毒感染流行期间孤独症谱系障碍 儿童心理行为问题的研究概况

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[摘要] 自2019年12月起, 新型冠状病毒感染(coronavirus disease 2019, COVID-19)在全世界范围内迅速传播, 正影响着普通人的身心健康, 其对于孤独症谱系障碍(autism spectrum disorder, ASD)儿童可能存在更严重的潜在危害。该文就COVID-19流行期间ASD儿童出现的心理行为问题及其影响因素的相关研究进行综述, 为ASD儿童的临床研究提供参考。

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[关键词] 新型冠状病毒感染; 孤独症谱系障碍; 心理问题; 行为问题; 影响因素; 儿童

### A review of research on psychological and behavioral problems in children with autism spectrum disorder during the coronavirus disease 2019 epidemic

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**Abstract:** Since December 2019, coronavirus disease 2019 (COVID-19) has been rapidly spreading worldwide and affecting the physical and mental health of the general population. It may have even more serious potential harm to children with autism spectrum disorder (ASD). This paper provides a literature review on the psychological and behavioral problems experienced by children with ASD during the COVID-19 epidemic, as well as the factors influencing these issues. The findings of this review can serve as a basis for clinical research on ASD children.

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**Key words:** Coronavirus disease 2019; Autism spectrum disorder; Psychological problem; Behavioral problem; Influencing factor; Child

自2019年12月起, 新型冠状病毒感染(coronavirus disease 2019, COVID-19)在全世界范围内迅速传播, 颠覆了数十亿人传统的生活方式。医疗服务中断、社会保障缺失、社会联系封闭、经济形势恶化, 以及COVID-19带来的负性情绪, 正影响着普通人的身心健康<sup>[1-3]</sup>。

COVID-19对于孤独症谱系障碍(autism spectrum disorder, ASD)儿童可能存在更严重的潜在危害。在COVID-19大流行之前, 国际上关于不

良紧急事件对ASD儿童影响的研究非常有限<sup>[4]</sup>。已有研究指出, ASD患者对于严重急性呼吸综合征冠状病毒2具有较高的感染率和病死率<sup>[5]</sup>, 然而却缺乏相应的政策保护<sup>[6]</sup>。COVID-19大流行期间, 专业护理人员大量减少, 使本就难以适应社会变化的ASD群体雪上加霜<sup>[7-9]</sup>。COVID-19不仅给ASD儿童带来了负面影响, 也增加了其家庭成员的心理负担, 如一项综述<sup>[10]</sup>指出, ASD儿童的父母在大流行期间增加了焦虑和压力。本文就COVID-19

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流行期间18岁以下ASD儿童出现的心理行为问题及其影响因素的相关研究进行综述，以期为ASD儿童的临床研究提供参考。

## 1 COVID-19流行期间ASD儿童的心理行为问题

### 1.1 压力与精神疾病

共有11篇文献<sup>[11-21]</sup>报道了COVID-19流行期间ASD儿童压力、精神疾病的相关问题：64%的ASD儿童以前有精神疾病，其中41%的儿童经历了精神问题的恶化；超过一半（53%）的ASD儿童表现出易怒、睡眠问题、焦虑、破坏性行为等新症状，其中29%的ASD儿童出现了COVID-19流行前没有过的精神问题；59%的患儿经历了COVID-19流行前精神病症状的恶化和/或新的精神病症状的发展；焦虑（12%）成为先前没有精神问题的儿童在COVID-19流行后的第三个常见症状。虽然COVID-19流行期间，ASD儿童和正常发育儿童均承受了较大的压力<sup>[22]</sup>，但由于ASD儿童对COVID-19的理解程度低于健康儿童，因此ASD儿童更易感到沮丧、焦虑、抑郁<sup>[11-16, 18-21]</sup>。

### 1.2 核心症状

9篇文献<sup>[16-17, 22-28]</sup>提及ASD儿童出现社交、兴趣爱好狭窄和僵硬、刻板、重复行为的相关问题。多项研究显示，在COVID-19流行期间，ASD儿童限制性和重复性行为增加<sup>[16-17, 22-27]</sup>。印度的一项研究指出，在COVID-19疫情防控期间，ASD儿童的行为问题、与父母或同龄人互动的相关问题恶化<sup>[17]</sup>。一项土耳其研究显示，33.4%ASD儿童父母报告的行为问题中，过度活动（37.8%）和重复/刻板行为（29.8%）是父母最常发现的问题<sup>[25]</sup>。另有研究显示，在COVID-19暴发期间和家庭封锁期，患儿ASD症状明显恶化<sup>[26]</sup>，表现出强迫症行为增加<sup>[21]</sup>。国内的一项研究显示：患有共病的ASD患儿表现出更明显的ASD症状和精神症状恶化；接近一半的研究人员（44.4%）表示，ASD患儿症状加重；43.3%的受访者描述了患儿总体精神症状的恶化，其中15.7%的参与人员报告了ASD患儿药物剂量的增加<sup>[28]</sup>。

### 1.3 自伤与情绪问题

8篇文献<sup>[11, 13-14, 17, 23, 25-26, 28]</sup>报道了ASD儿童的自伤与情绪问题。COVID-19流行后，ASD儿童表

现出易怒<sup>[11, 14, 26]</sup>、破坏性行为<sup>[11]</sup>、攻击性行为<sup>[23, 28]</sup>、脾气暴躁<sup>[13-14, 17, 23, 25]</sup>、对立<sup>[23]</sup>、自我伤害行为<sup>[23]</sup>和不愉快<sup>[25]</sup>等症状。土耳其的研究显示：在COVID-19流行期间，44.5%的ASD儿童和青少年至少有1种情绪症状；烦躁和不愉快是最常见的情绪症状<sup>[25]</sup>。

### 1.4 睡眠问题

共有5篇文献<sup>[11-12, 15, 20, 25]</sup>报道了COVID-19流行期间ASD儿童的睡眠问题。在美国，睡眠问题成为COVID-19流行前无精神疾病儿童在流行后最常见的症状<sup>[11]</sup>。ASD儿童的睡眠问题主要表现为：就寝时间及起床时间延迟<sup>[12, 15, 20, 25]</sup>、睡前焦虑<sup>[12, 15]</sup>、白天嗜睡<sup>[12, 15]</sup>、梦游<sup>[12]</sup>、睡眠恐惧<sup>[12, 15, 20]</sup>、睡眠抽搐<sup>[12]</sup>、打鼾/呼吸暂停<sup>[12]</sup>、节律性运动障碍<sup>[12]</sup>、入睡困难<sup>[12, 15]</sup>、夜间觉醒<sup>[12, 20]</sup>。56.9%的意大利ASD儿童改变了就寝时间<sup>[15]</sup>，51.50%的土耳其ASD儿童出现就寝、起床时间延迟<sup>[25]</sup>。ASD儿童的睡眠问题在COVID-19流行期间更为普遍<sup>[12]</sup>。

### 1.5 网络行为问题

仅有1篇文献<sup>[15]</sup>报道了ASD儿童的网络行为问题。Bruni等<sup>[15]</sup>研究显示，COVID-19流行期间，ASD儿童的屏幕使用时间增加，42.2%的ASD儿童每天花费在电子屏幕上的时间超过4 h，而之前这个比例只有10.0%。按年龄组进行的分析表明，所有年龄组的屏幕使用时间在COVID-19流行后都明显增加，使用屏幕时间超过4 h的儿童比例很高：1~3岁组流行前使用屏幕时间为9.1%，流行期间为45.5%；4~5岁组流行前为8.7%，流行期间为47.8%；6~12岁组流行前为4.3%，流行期间为31.9%；13~18岁组流行前为20.7%，流行期间为55.2%。

### 1.6 其他问题

共有6篇文献<sup>[13-14, 19, 22, 25, 27]</sup>报道了COVID-19流行期间ASD儿童出现的喂养、共患病和感官问题。在COVID-19流行期间，ASD儿童表现出注意缺陷多动障碍<sup>[14]</sup>和感官问题显著恶化<sup>[13]</sup>，且流行前患有共病的儿童表现出明显更强的ASD症状和精神症状恶化<sup>[27]</sup>。一项研究提及先前有喂养困难和饮食限制的儿童，在COVID-19流行后选择拒绝进食，或因为无法进食自己喜欢的食物或膳食而经历严重的情绪困扰<sup>[19]</sup>。也有研究指出ASD儿童的饮食习惯发生改变<sup>[22]</sup>。一项土耳其的研究显示，

32.4%的神经发育障碍儿童和青少年出现食欲变化，最常见的表现为食欲增加（23.7%）<sup>[25]</sup>。

## 2 COVID-19流行期间ASD儿童心理行为问题的评价工具

在COVID-19流行期间，ASD儿童心理行为问题的评价工具多为量表法，通过社交媒体线上发放网络调查问卷/量表<sup>[11-18, 20-25, 27]</sup>、在线调查<sup>[13]</sup>、网络语音或视频会议进行访谈<sup>[19, 26]</sup>或邮寄量表<sup>[28]</sup>收集信息，并以电话方式随访<sup>[17]</sup>。除自制健康问卷<sup>[11-12, 16-20, 22, 24-25, 27]</sup>外，心理行为问题应用最广泛的测量工具为行为检查表<sup>[13, 21, 23, 26, 28]</sup>、儿童睡眠问卷<sup>[13, 15, 20]</sup>、焦虑量表<sup>[18, 21]</sup>。

## 3 COVID-19流行期间ASD儿童心理行为问题的影响因素

### 3.1 社会人口学特征

8项研究<sup>[11, 13-14, 16, 18, 20, 25, 27]</sup>表明家庭因素与COVID-19流行后ASD儿童心理行为问题的高发生率有关，主要包括：家庭收入严重减少、社会经济水平降低、家庭内部冲突、父母消极情绪（焦虑、抑郁）、父母职业、父母支持减少。2项研究<sup>[14, 18]</sup>表明年龄、性别与心理行为问题有关，对于ASD群体而言，年龄较大的儿童总体焦虑程度高于年龄较小的儿童，年龄增长与焦虑发生率呈正相关；女孩的总体焦虑程度高于男孩，女孩的心理行为问题发生率高于男孩。

### 3.2 COVID-19流行期间生活方式的改变

COVID-19流行期间ASD儿童生活方式的改变，包括体育活动减少<sup>[12, 15-16, 20, 23, 27]</sup>、被迫停止教育和治疗<sup>[14-15, 17, 19, 22, 24-25, 27-28]</sup>、社交和活动行为受限<sup>[12, 15, 21-22, 26]</sup>、作息不规律<sup>[12, 15, 20]</sup>、饮食失调<sup>[19]</sup>等，与ASD儿童心理行为问题的发生有关。

### 3.3 对COVID-19的认知程度

ASD儿童对COVID-19的了解程度与其心理行为问题显著相关。过多或不够了解COVID-19信息<sup>[21, 25]</sup>和过度关注媒体<sup>[27]</sup>是ASD儿童出现心理行为问题的危险因素。与其他神经发育障碍儿童相比，ASD儿童获取COVID-19流行相关信息的可能性最低。在所有不知晓COVID-19流行的ASD儿童中，75.6%的人表现出行为问题（多动、刻板行为、发脾气、自我伤害行为、伤害他人、损坏物

品、不当性行为等）<sup>[25]</sup>。ASD儿童获取信息的主要来源是父母和网络媒体，而父母及时获取准确信息是用来减少ASD儿童焦虑的一个重要因素；电视和互联网是父母最常获得COVID-19信息的来源<sup>[21, 25]</sup>。

## 4 心理行为问题及其影响因素的分析与干预

与健康儿童相比，在COVID-19流行期间，ASD儿童可能面临更严峻的心理行为问题<sup>[24]</sup>。有研究显示，抑郁、焦虑是COVID-19流行后ASD儿童最突出的心理和精神问题<sup>[29-32]</sup>。由于儿童缺乏应对重大突发公共卫生事件及自我情绪调节的能力，在面对急性突发事件时往往会遭受更大的心灵创伤<sup>[33]</sup>。当儿童对社区正在发生的事情一无所知时，他们往往会更担心，并且经常以愤怒、分心和发脾气的形式发泄他们的担忧<sup>[34]</sup>。其次，一些ASD患儿难以遵守公共卫生指南，例如戴口罩、正确洗手方法及保持社交距离<sup>[35]</sup>。即使疫情全面放开，仍有大约三分之一的ASD患儿被关闭在家<sup>[36]</sup>。断断续续的医疗服务、教育资源及受限的社会交往，会直接增加儿童的身心压力，加剧现有的情绪障碍<sup>[37]</sup>。患儿出现明显的孤独感，孤独感与已有心理健康问题儿童的抑郁和焦虑有关，这种关系可能是双向的<sup>[38]</sup>。ASD儿童的抑郁、焦虑、暴躁等消极应对态度会进一步影响其他家庭成员的心理健康。与有其他缺陷儿童的父母相比，养育ASD儿童的父母更容易出现精神问题<sup>[39-41]</sup>。此外，ASD儿童抑郁、焦虑障碍及与悲伤相关的症状可能也与家庭监禁、家庭内暴力的增加有关<sup>[42]</sup>。

ASD儿童行为问题的恶化可能与情绪、精神及睡眠问题相关<sup>[2]</sup>。COVID-19流行极大地改变了儿童的正常睡眠模式，先前患有神经发育问题的儿童特别容易受到睡眠障碍的影响<sup>[43]</sup>。COVID-19的流行使得ASD儿童和家庭不得不调整睡眠时间表，如果儿童没有得到足够的睡眠，他们可能会变得暴躁易怒、抑郁、焦虑，出现技能退化、行为问题恶化、注意力困难和记忆问题，睡眠不足也会增加患高血压、肥胖症、抑郁症和糖尿病的风险，并出现一系列不良行为，如吸毒、自残、自杀<sup>[2, 3, 30, 44-49]</sup>。

屏幕使用时间也与儿童的心理行为问题相关。

COVID-19流行期间学校教育与医疗逐渐向线上过渡，随之而来的是电子屏幕使用负担和出现的不良相关使用行为<sup>[50]</sup>。之前已有研究表明，电子设备的过度使用与儿童的行为问题呈正相关，长时间使用电子媒介还与抑郁、焦虑、肥胖、睡眠问题相关<sup>[51-52]</sup>。屏幕使用时间和行为问题之间的联系可能由睡眠持续时间调节，增加屏幕使用时间的同时缩短了睡眠时间可能对儿童的心理健康特别不利<sup>[53]</sup>。因此，ASD儿童表现出的心理行为问题之间可能存在潜在联系，如果介入治疗要从整体考虑。

改善ASD儿童的心理行为问题离不开ASD家庭、学校、医院、政府的共同努力<sup>[54]</sup>。对于ASD患儿来说，多参加体育活动是预防焦虑等负面情绪最有效的方法<sup>[45]</sup>，家长要引导患儿定期进行体育锻炼和养成健康的生活方式，这样可以减少患儿的屏幕使用时间，并改善睡眠质量<sup>[55-56]</sup>。其次，ASD患者倾向于通过虚拟媒体进行社交互动<sup>[57]</sup>，保持社交联系对于减轻孤独感很重要<sup>[38, 58-59]</sup>。智能手机和社交媒体现在已成为儿童娱乐、信息获取和教育的重要载体<sup>[60]</sup>。家长应引导患儿正确使用网络媒介社交，合理控制屏幕使用时间。另外，家庭成员之间健康的情感互动是缓解患儿压力的另一个简单而有效的方法，积极的育儿方式和以问题为中心的应对策略可以将这场危机转化为机遇<sup>[54]</sup>，因此，家庭成员们应及时调整心态，以健康乐观态度应对这场挑战。

在COVID-19流行期间，学校、私人治疗师和医疗保健服务机构的支持可以减轻ASD儿童家庭应对COVID-19的压力<sup>[31]</sup>。特教老师要了解ASD患儿出现问题的危险因素，并在教学中规避这些风险。教师还应及时掌握患儿的心理行为变化，一旦发现问题应给予及时疏导和正确引导。体育活动应纳入在线教育课程，个性化定制ASD儿童的体育活动锻炼方案，并进行定期和针对性随访。医院应积极开展远程或上门服务、电话支持<sup>[54, 58, 61]</sup>。医院除提供医疗服务外，还应注重科学宣教、心理辅导，以及对家长的技能培训<sup>[60, 62]</sup>。立足疫情，将国内外疫情现状、国家政策变化、应对措施等信息进行宣传教育，增加父母或看护者在有效教育和干预策略（如积极行为支持）方面的培训，帮助ASD儿童父母树立信心，缓解紧张压抑情绪。政府部门及相关机构应持续关注ASD群体及其家庭的动态，提供关于COVID-19的

准确信息<sup>[60]</sup>，必要时给予政策扶持及医疗、生活补贴<sup>[62]</sup>。

## 5 总结与展望

综上所述，COVID-19的流行对ASD儿童的身心健康造成了极大冲击，ASD儿童出现心理行为问题的形势严峻，其中影响最为广泛的是抑郁、焦虑、暴躁和核心症状恶化。ASD儿童出现心理行为问题的影响因素主要包括社会人口学特征、生活方式改变和对COVID-19认知程度3个方面。其中生活方式改变是最主要的影响因素。随着疫情的好转、公共资源的恢复，ASD儿童的症状可能会有一定程度的改善，但受疾病特点影响，有些心理行为问题可能会伴随终生。因此，未来研究应持续关注ASD儿童的心理行为发展，并挖掘ASD儿童康复措施的多样性，包括探讨将新兴科技、数字化建设成果应用于ASD群体的可行性和安全性，以及探索以父母为导向的家庭治疗的有效性，帮助和支持这一弱势群体的身心健康发展。

利益冲突声明：所有作者声明不存在利益冲突。

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