



Understanding Anxiety in Children with Autism Spectrum Disorder

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Learning Objectives

- Participants will increase their knowledge of...
 - what constitutes ‘anxiety.’
 - why children and youth with ASD are at greater risk for developing anxiety.
 - the types of anxiety disorders seen in children and youth with ASD.
 - considerations for assessing and treating anxiety disorders in children and youth with ASD.

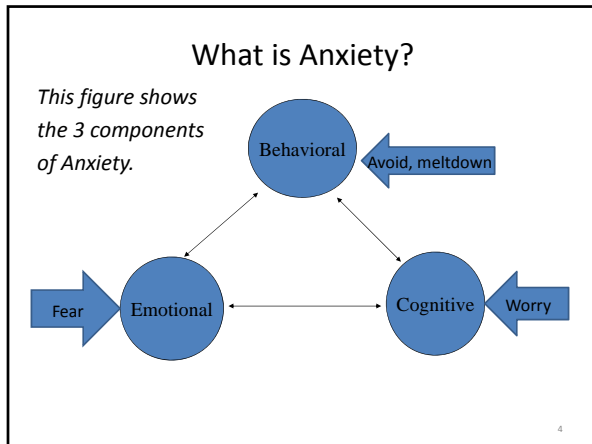
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What is Anxiety?



- Clinical term used to describe....
 - **Worry**
 - Thoughts of uneasiness or concern that something bad may happen (perceived threat).
 - **FEAR**
 - Negative emotion induced by worry/perceived threat.
- **Anxiety**
 - Physiological & psychological state with 3 components: *cognitive (worry), emotional (fear), and behavioral (avoidance, meltdowns, other behavior problems).*
 - If anxiety symptoms cause *functional impairment* then it might be diagnosed as an ‘Anxiety Disorder.’





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Why Talk About Anxiety in ASD?

- High percentage of children with ASD have co-occurring anxiety. 
- Anxiety can cause problems in school, home and community.
- Anxiety can affect the child's overall well-being and that of the family. 

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Why Do Children With ASD Have Higher Rates of Anxiety Than Other Children?

- Clinical researchers suggest that ASD impairments increase the risk for developing one or more emotional-behavioral disorders (EBD).
 - Anxiety disorders are common.
- Diagnosis of ASD now requires the clinician to specify if the individual also has a specific EBD, such as an anxiety disorder.

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ASD & Anxiety

- Social Communication & Interaction Impairments.
 - Difficulty with social-emotional concepts in self and others.
 - Difficulty identifying and understanding social cues.
 - Limited insight into thoughts, feelings, and motivation for action (self & others).
 - Limited learning from social environment on how to cope and problem-solve.

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ASD & Anxiety

- Restricted & Repetitive Behavior, Interests, and Activities.
 - Insistence on sameness (rigidity) may interfere with effective problem-solving & coping.
 - Repetitive, non-functional behavior may interfere with developing & using alternative behaviors to help with anxiety management and coping.
 - Repetitive behaviors may be used as a means of coping with anxiety, but these behaviors can interfere with overall functioning.

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ASD & Anxiety

- Clinical researchers suggest that related conditions may also play a role.
 - Language Impairment.
 - Limited vocabulary to label triggers to anxiety & to label, understand & express emotion(s), behaviors, & consequences of behavior.
 - May interfere with learning/developing coping and problem-solving skills.
 - Intellectual Level.
 - Some studies indicate that IQ level may increase risk for developing an anxiety disorder.

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ASD & Anxiety

- Clinical researchers also suggest that developmental factors may contribute.
 - Children with ASD may experience different anxiety disorders at different ages. For example, some studies indicate.....
 - Younger children: more likely to have Specific Phobia.
 - Adolescents: more likely to have Generalized Anxiety Disorder, OCD and Social Phobia.
 - Anxiety may not look the same as in typically developing children at the same age.

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ASD & Anxiety

- Clinical research indicates that anxiety symptoms wax and wane.
 - Environmental factors likely play a role.
 - Stressors increase anxiety symptoms, particularly if the child doesn't have adequate coping skills.
 - May lead to development of an anxiety disorder.
 - Makes identifying anxiety disorders that much harder unless routinely monitoring and screening for anxiety over time.

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Anxiety Disorders in ASD

Anxiety Disorders

- Commonly diagnosed anxiety disorders in ASD.
 - Generalized Anxiety Disorder(GAD).
 - Social Anxiety Disorder.
 - Obsessive-Compulsive Disorder (OCD).
 - Specific Phobia
 - Separation Anxiety Disorder
 - Panic Disorder

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Anxiety Disorders

- Generalized Anxiety Disorder (GAD).
 - Chronic and persistent worry about a variety of life events/issues more days than not for at least 6 mos.
 - Many non-specific physical (somatic)/emotional symptoms.
- Social Anxiety Disorder.
 - Marked and persistent fear of social or performance situations.
 - Fear of acting in a way that will be humiliating or embarrassing.
 - Associated with negative self-evaluation.

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Anxiety Disorders

- Obsessive-Compulsive Disorder.
 - *Obsessions:*
 - Recurrent intrusive thoughts, images or impulses.
 - *Compulsions:*
 - Repetitive behaviors or mental acts, performed to reduce anxiety/neutralize obsessive thoughts.

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Anxiety Disorders

- Obsessive-Compulsive Disorder.
 - Obsessions/Compulsions tend to fall into a few categories:
 - Contamination obsessions with cleaning compulsions.
 - Responsibility for harm obsessions with checking compulsions.
 - Order/symmetry obsessions with arranging compulsions.
 - Repugnant thoughts with mental rituals/neutralizing strategies.

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Anxiety Disorders

- Specific Phobia.
 - Marked and persistent fear of a specific stimulus.
 - Attempts are made to avoid the feared stimuli.
 - Encounters with the feared stimuli may result in severe anxiety reaction, possibly a panic attack.
 - Children with ASD may differ with respect to source of fear compared to general population.
- Separation Anxiety Disorder.
 - Developmentally inappropriate fear of loss or separation from caregiver or home.
 - Repeated nightmares of separation.
 - Physical complaints when separated or in anticipation of separation.

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Anxiety Disorders

- Panic Disorder.
 - Discrete period of intense fear or discomfort, with several of the following:
 - Racing heart, palpitations, pounding.
 - Sweating
 - Trembling or shaking
 - Shortness of breath
 - Feeling of choking
 - Chest pain or discomfort
 - Numbness or tingling
 - Chills or hot flushes
 - Dizzy, lightheaded, or faint
 - Sense of unreality or detachment
 - Fear of losing control, going crazy, or dying
 - With or without Agoraphobia (anxiety about being in a specific place or situation that you believe you can't escape from).

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ASD & Anxiety

- Because of the high risk for anxiety and the potential for negative effect on functioning and well-being, regular assessment is needed to ensure that effective treatment is provided in a timely manner.



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Assessing Anxiety in ASD

Assessing Anxiety in ASD

- Assessment helps determine
 - If the child has one or more anxiety disorders or just periodic anxiety symptoms in response to situational stressors.
 - If the anxiety symptoms/disorder is affecting the child's functioning and/or well-being.
- Children with ASD may not be able to report on their own feelings and personal experiences.
 - May not have the vocabulary.
 - May not understand their thoughts and feelings.
 - May not understand the concept of 'anxiety.'

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Assessing Anxiety in ASD

- Therefore, parents/caregivers and school professionals need to collaborate to **monitor** the child for.....
 - Changes from *typical baseline* level of functioning.
 - For evidence of *personal distress*.
 - For a *pattern of behavior* that is outside the norm for the child.

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Assessing Anxiety in ASD

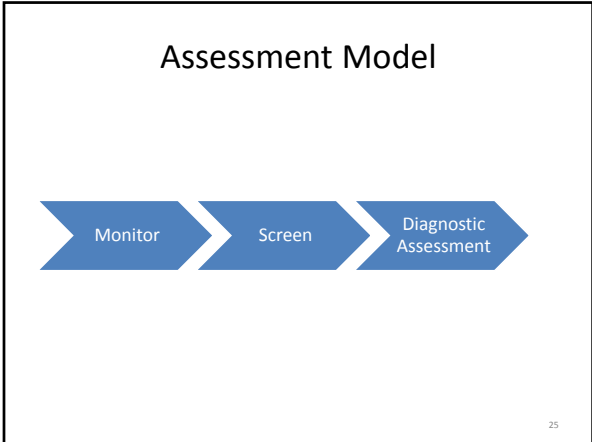
- Particularly important to monitor for changes in baseline functioning under these following conditions...
 - Before/during/after major transition periods, for example...
 - change in school or home.
 - transition from elementary to middle, and high school to work/college.
 - When significant change occurs at home or school.
 - Teacher out on leave; parent travel for business; death of a caregiver; birth of a sibling; loss of a friend....
 - Throughout adolescence and young adulthood.
 - After any change in the child's health.

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Assessment Model

- If changes are observed, need to screen specifically for anxiety.
 - Methods: observation, interview, rating scales.
- If the screen is negative → continue to monitor.
- If the screen is positive → diagnostic assessment.

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- ### Methods of Assessment
- *Multiple methods and multiple informants* are often needed to gather data on the following...
 - Baseline and current functioning.
 - Anxiety symptoms.
 - ASD symptom profile.
 - Developmental levels.
 - Medical status and medications.
 - Environment/context.
 - Changes in circumstance.
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- ### Methods of Assessment
- Methods of assessment include....
 - Record Review.
 - To obtain history on developmental, emotional-behavioral difficulties and treatment, and medical issues.
 - Interview.
 - Of the parent/caregiver, teacher (where applicable), and child (where applicable).
 - Questionnaires/Rating Scales.
 - That measure for anxiety disorder (and other disorders, such as behavior disorders).
 - That measure specific symptoms associated with anxiety.
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Methods of Assessment

- Methods of assessment include...
 - Direct observation.
 - Of the child (where applicable) to evaluate mood, thinking, appearance, activity level, etc.
 - Good for routine monitoring!!!!
 - Functional Behavioral Assessment (FBA).
 - Specific type of assessment that evaluates environmental and other factors that may be related to the child's anxiety.
 - Particularly useful for those youth who may also have behavior problems (e.g., meltdowns) that may be related to anxiety symptoms.

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Assessment Measures

Some select measures

Assessment Measures

- There are a number of assessment measures that can be used for screening, diagnostic and progress monitoring purposes.
 - Not a lot of research on these measures, but some is emerging.
 - Evaluator needs to be familiar with the measure to make sure it is appropriate for the purpose of the evaluation.
 - Screening vs. diagnostic vs. progress monitoring.

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Assessment Measures

- Direct Observation.
 - Good for observing what factors may trigger and maintain the anxious behavior.
 - [Antecedent-Behavior-Consequence \(ABC\) form.](#)
 - Used often in a Functional Behavioral Assessment.
 - Recommended for use in monitoring and progress assessment.
 - [Scatter Plot.](#)
 - Often used to identify a relationship between an environmental condition and a behavior that may seem random, but is consistently displayed.

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Assessment Measures

- Rating Scales.
 - Good for screening, diagnostic and progress monitoring assessments.
 - Child Behavior Checklist 1.5-5 & 6-18* (Achenbach & Rescorla, 2000, 2001).
 - Behavioral Assessment System for Children-II (Reynolds & Kamphaus, 2004).
 - Aberrant Behavior Checklist (Aman & Singh, 1985)*.

**Sufficient research to support its use in ASD assessment.*

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Assessment Measures

- Interview.
 - Good for screening, diagnostic and progress monitoring assessments.
 - [Functional Assessment Interview](#) (FAI; O'Neill et al., 1997).
 - Kaufman Schedule for Affective Disorders and Schizophrenia (K-SADS; Kaufman et al., 1996).
 - Both interviews are appropriate for use in ASD assessment.

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Treatment

Methods
Considerations

Linking Assessment to Treatment Planning

- Data from the diagnostic assessment informs the Treatment Plan.
 - Data inform the interventions needed to address ASD symptoms that are related to the anxiety.
 - Data inform the interventions needed to address the anxiety disorder/symptoms.
 - Data provide a baseline for monitoring response to the Treatment Plan.

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Linking Assessment to Treatment Planning

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graph LR; A[Treatment Plan] --> B[Progress Monitor]; B --> C[Revise Plan & Monitor Progress];
```

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Treatment Targets

Different treatment approaches may be used to address ASD and related impairments and one or more components of anxiety.

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    graph TD
      Behavioral((Behavioral)) <--> Emotional((Emotional))
      Behavioral <--> Cognitive((Cognitive))
      Emotional <--> Cognitive
  
```

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Treatment Targets

- The Treatment Plan will often need to be comprehensive, using different methods to address...
 - ASD impairments related to the anxiety disorder/problem.
 - Functional communication, language, social, and behavior regulation.
 - Behavior disorder/problem that may also be present.
 - Meltdowns,
 - Aggression & Self-injury
 - Noncompliance
 - Anxiety disorder and symptoms.

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Treatment Methods

- A number of evidence-based methods exist.
 - ASD, Related Impairments, Behavior Disorders.
 - Applied Behavior Analysis
 - Behavior Modification
 - Anxiety Disorder and Symptoms.
 - Behavior Therapy.
 - Cognitive Behavior Therapy.
 - Psychopharmacology (medication).
 - Combination Interventions.

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Treatment Methods

- Methods of Applied Behavior Analysis & Behavioral Modification often used to address ASD impairments and Behavior Disorders.
 - Language skills training.
 - Functional communication training.
 - Social Skills training (e.g., Skillstreaming Series).
 - Behavioral self-regulation of repetitive behaviors.

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Treatment Methods

- Some examples of behavior analytic methods include....
 - Direct Instruction
 - Discrete Trial Teaching
 - Verbal Behavior Training
 - Incidental Teaching
 - Model-prompt
 - Coaching

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Treatment Methods

- Behavior Therapy (BT) Approaches for Anxiety and Behavior Disorders.
 - Relaxation training.
 - Exposure methods.
 - Systematic desensitization methods.
 - Reinforcement systems.
 - Assertiveness training.
 - Problem-solving training.

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Treatment Methods

- Cognitive-Behavior Therapy (CBT) Approaches for Anxiety.
 - Self-instructional Training.
 - Coping Skills Therapy.
 - Anxiety Management Training.
 - Cognitive Restructuring & Rule Governed Strategies.
 - Problem-solving Therapy.
 - Structured approach with script.
 - Self-Management Therapy.
 - Self-control training.
 - Self-regulation training.

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Treatment Methods

Psychopharmacology

- Corrects the biochemical abnormalities thought to be responsible for the anxiety & any associated behavior problems.
- Few evidence-base medications: Risperdal & Abilify address agitation, aggression, and meltdowns that may be associated with an anxiety disorder or problem.

Combination Methods

- Applied Behavior Analysis/Behavior Modification for ASD impairments & behavior disorders.
- BT & CBT to address anxiety management, and any skill deficits in emotional and behavioral regulation.
- Medication to adjust abnormalities hypothesized to contribute to the child's anxiety.

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Treatment Methods

- Parent/caregiver/staff training includes...
 - education on ASD impairments and the anxiety disorder and its symptoms.
 - education and training on the intervention methods used to improve ASD impairments related to the anxiety disorder.
 - education and training on the intervention methods used to treat the anxiety disorder.
 - assistance to establish support systems to support continuity of care across home, school, and community.

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Treatment Objectives

Cognitive	<ul style="list-style-type: none"> • Teach how to label triggers to anxiety, emotions, and anxious behaviors and their outcomes. • Teach coping self-statements and problem-solving skills.
Emotional	<ul style="list-style-type: none"> • Teach the child to identify, label, and express his/her emotion(s). • Teach the connection between trigger and anxious feeling.
Behavioral	<ul style="list-style-type: none"> • Teach how to identify behavioral response (internal arousal/external expression) to anxiety, trigger, & outcome. • Teach skills to replace problem behaviors associated with anxiety.

Treatment Considerations

Treatment Considerations

- Behavior Therapy and Cognitive Behavior Therapy methods may need to be adapted to the child's instructional level.
 - Identify ASD needs to improve participation in BT/CBT and provide intervention to address these needs.
 - Conduct shorter sessions, more frequently.
 - Provide more opportunity to practice anxiety management skills and strategies.
 - Parent and staff education to assist with transferring skills to the natural setting (e.g., home, school, community) for repeated practice.

Treatment Considerations

- Use of social-cognitive supports and visual supports.
 - Social stories, coping cards, problem-solving cards.
 - Visual cues for specific skills/strategies, rule cards, prosocial skill cards etc.
- Provide training for language and functional communication impairments related to anxiety.
 - Vocabulary and language structure for identifying and expressing....
 - Triggers to anxiety.
 - Emotions and body sensations.
 - Coping statements and cognitive rules.
 - Behavior and outcomes.

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Treatment Considerations

- Use child specific interests to teach relevant concepts.
 - Use of specific language to label things.
 - Use of interests to frame the teaching of specific skills.
- Use of reinforcement system(s) to increase motivation and learning.
 - Therapy session.
 - Home and school setting.

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Treatment Considerations

- To evaluate the child's response to intervention, a formalized progress monitoring system should be established and revisions made to the Treatment Plan based on performance data.



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Case Example

- Case Description:
 - 10 years old female.
 - ASD without intellectual disability or language impairment.
 - History of severe tantrums and meltdowns, and physical aggression.
 - Lives at home with parents and younger brother.
 - Fully mainstreamed.

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Case Example

- Assessment Protocol (by community psychologist).
 - CBCL, K-SADS, & FAI.
 - Clinical interview with parents.
 - Direct observation of child in session.
 - Parent completed A-B-C sheets for 2 weeks.
- Diagnosis.
 - Generalized Anxiety Disorder.
 - Aggressive behavior related to Anxiety Disorder and ASD impairments in social communication and behavioral regulation.

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Case Example

- Combination Approach:
 - Cognitive-Behavior Therapy and parent education from community psychologist for anxiety disorder (also included the development of a Behavior Support Plan for home).
 - Community psychiatrist for medication management of anxiety symptoms (e.g., agitation) and aggression.
- Residential Habilitation services from local developmental agency to implement Behavior Support Plan at home.
- Expanded school-based supports and interventions to address social communication impairments.

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Case Example

- Progress Monitoring:
 - Child and parent report on anxiety symptoms and behavior problems.
 - A-B-C for behavior problems at home.
 - CBCL at 6 months.
- Care Coordination:
 - Community Psychologist.
 - Parent.
 - Medicaid Service Coordinator.

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Select Resources

- Books
 - Attwood, T. (2004). Exploring Feelings: Cognitive Behaviour Therapy to Manage Anxiety. Future Horizons, Arlington:TX available www.FutureHorizons-autism.com
 - Baron, Groden, Groden, & Lipsitt (Eds). Stress & Coping in Autism (2006). Oxford University Press Inc.: New York, NY.
 - Chalfant, A. (2011). Managing Anxiety in People with Autism: A Treatment Guide for Parents, Teachers, and Mental Health Professionals. Woodbine House available at http://www.woodbinehouse.com/excerpt.asp_Q_product_id_E_978-1-60613-004-9

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Select Resources

- Books
 - Goldstein, A.(1999).The PREPARE Curriculum: Teaching Prosocial Competencies-Revised Edition. Available through Research Press at <https://www.researchpress.com/>
 - Kendall, P. & Hedtke, K. (2006). Coping Cat Workbook Series:2nd Edition. Workbook Publishing, Inc. Available at <http://www.workbookpublishing.com/>
 - McGinnis & Goldstein-Skillstreaming Series available through Research Press at <https://www.researchpress.com/>
 - Smith-Myles, B., & Southwick, J.(1999). Asperger syndrome and difficult moments: Practical solutions for tantrums, rage, and meltdowns. AAPC available at www.asperger.net

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Select Resources

- Rating Scales & Interview:
 - Aberrant Behavior Checklist:
<http://www.stoeltingco.com/stoelting/2257/1467/1497/Psychological/Aberrant-Behavior-Checklist-ABC>
 - Child Behavior Checklist:
<http://shop1.mailordercentral.com/aseba/>
 - K-SADS:
<http://www.wpic.pitt.edu/ksads/default.htm>

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Question & Answer

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