

**MANUAL FOR THE MEDICAL COMPLIANCE INCOMPLETE STORIES TEST
(MCIST)**

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Background Information

The Medical Compliance Incomplete Stories Test (MCIST) is intended as a tool for assessing attitudes of children and adolescents toward medical compliance situations. It is based on a competency/coping skills model (Lazarus, 1980; Mondell and Tyler, 1981; Mondell, Tyler, and Freeman, 1981; and Tyler, 1978) and is expected to prove a useful instrument in predicting medical compliance.

The MCIST is a set of five incomplete stories in which the focal character is confronted with a dilemma involving a decision about a specific choice of behavioral outcomes in response to medical advice. The participant is asked to complete the story and in so doing to predict the outcome for the main character in each situation. The test is individually administered and responses are recorded verbatim.

The instrument was first devised by Koocher in 1982 and a potential means of screening for non-compliance in a large pediatric chronic illness population. Czajkowski and Koocher (1986, and in press) subsequently refined and began concurrent validity studies. Fitzpatrick initiated design of a parent version in 1986 (unpublished doctoral dissertation). Continuing validity studies are underway.

Each story is scored separately using a set of objective criteria along three dimensions: compliance (C), optimism (O), and self-efficacy (SE). The scores are totaled for each dimension yielding individual subscores for each of these three characteristics. According to Mondell and Tyler's (1981; 1978) schema, these scores represent the three major characteristics of a competent individual. In addition, a cumulative "competency/compliance score" is computed by summing the three dimensional subscores.

Caution

The MCIST is intended for use as an estimate or predictor of medical compliance in health and pediatric psychology research. It has been used with good results in several research projects. The content of the stories produced is often rich in projective material of potential interest to clinicians, however the MCIST has not been validated for clinical use.

Parent Form

The Medical Compliance Incomplete Stories Test - Parent Form (MCIST-PF) is an extension of the work done by Koocher and Czajkowski. The intention is to utilize the MCIST-PF as an instrument for assessing parental attitudes toward medical compliance in situations involving their children. The ultimate application goal is exploration of the relationship or interaction between parental attitudes and child behaviors in medical compliance situations. Research on this relationship is currently in progress and this information is provided for investigational use only.

Like the MCIST, the MCIST-PF is a set of five incomplete stories in which the focal characters are confronted with a dilemma involving a decision about whether or not to follow specific medical advice. The participant is asked to complete the story and in so doing to predict the outcome for the main character in each situation. The test is individually administered and responses are recorded verbatim.

Each story is scored separately using a set of objective criteria along three dimensions parallel to the MCIST system: compliance (C), optimism (O), and self-efficacy (SE). Likewise, scores are totaled for each dimension yielding individual subscores for each of these three characteristics. In addition, a cumulative "competency/compliance" is computed by summing the three dimensional subscores.

Administration Instructions: Child/Adolescent Form

This instrument was designed for use with school-aged children and adolescents. The stories should be administered individually by reading them aloud to the participant. The stories should be read with expression to encourage the involvement and attention of the participant. A private or quiet setting, relatively free from distraction should be used.

The following instructions should be given verbatim:

"I am going to tell you a number of stories about people like you who are faced with making a decision about their health. Please listen carefully to each story and make up an ending for each one. Your story endings should tell what each person decides to do and what eventually happens to that person. There are no right or wrong answers. Simply make up an ending that seems sensible to you. Be sure to tell me what the person decides to do and what happens.@

Each answer should be recorded verbatim by the person administering the test. Stories may be re-read if the participant requests or if the test administrator believes that the participant was not paying attention or did not understand the story the first time.

The administrator should become familiar with the criteria for scoring each story, and be sure that sufficient data is obtained in each narrative to permit adequate scoring. If the administrator does not believe that a given narrative presents an adequate basis for scoring, the participant should be asked focused non-directive questions to gain the additional information needed.

Examples of probes might include:

- "What did the person in the story decide to do?"
- "Did the person follow the advice exactly?"
- "Did the people do it right away?"
- "How did that affect the person's health/illness?"
- "What do you think the future will be like for that person?"
- "Why do you think that happened?"

The Medical Compliance Incomplete Stories for Children and Adolescents

Story 1:

Bill went to the doctor for a checkup and was surprised when the doctor said, "You haven't had a booster shot in quite some time. I think I should give you one today." What do you think happened next?

Story 2:

Helen had been sick for two days. She had a headache, a stomach ache, and felt as though she might have to vomit. Her mother took her to the doctor. What do you think happened next?

Story 3:

The doctor came into Mike's hospital room and told him that he needed to have a serious operation. His right foot was diseased and it would have to be taken off, or else he might die. Mike knew that his foot was sore, but had not realized just how serious it was. What do you think happened next?

Story 4:

Jill had been sick for a long time, almost two years. Sometimes she felt better for a couple of months, and then got sick again for a time. Her doctor called her up one morning to tell her about a new treatment. It was so new that they did not know whether it would work for her or not. Sometimes it seemed to help some people with the same problem as Jill, but at other times it did not help or even seemed to make things worse. What do you think happened next?

Story 5:

Henry was born with a disease that he will have for his whole life. A lot of the time he feels perfectly well and not sick at all. Sometimes he even forgets he has a medical problem. The doctors told him that he would have to do special exercises and take ten pills every day to try and stay well. What do you think happened next?

General Scoring Guidelines

Compliance Score

The Compliance category is based on a continuum where:

2 point scores represent behavior on the part of the story characters which is in keeping with unquestioning, blind, immediate compliance and/or action (i.e., getting recommended surgery without delay)

1 point scores represent behavior on the part of the story characters which is in keeping with less than unquestioning or immediate compliance and/or action (i.e., any degree of hesitation or seeking a second medical opinion prior to getting recommended surgery)

0 point scores represent behavior on the part of the story characters which is in contrast to the initially recommended and/or expected behavior (i.e., not getting the surgery as initially recommended after getting a contradictory second medical opinion)

Health Optimism Score

The Health Optimism category is based on a continuum where:

2 point score include any statement which indicate an affirmative future or positive future outcome.

1 point scores are given when the future is uncertain or unchanged from present conditions.

0 point scores are given for any statement indicating the condition or situation is worse in the future.

Self-Efficacy Score

The Self-Efficacy category is based on a continuum where:

2 point scores represent a response which includes a direct statement and/or clear implication of a connection between the behavior of the story's characters and the outcome for the identified patient (i.e., Because the patient went along with the recommended treatment program he/she was fine).

1 point scores represent a response in which the relationship between behavior and outcome is unclear, and does not include a direct statement of a connection between the behavior of the story characters and the outcome for the identified patient (i.e., The patient went along with his/her recommended treatment, and he/she was fine).

0 point scores represent a response which include an outcome for the identified patient which appears to be irrespective of the behavior of the story characters (i.e., The patient refused to go along with the recommended treatment, and he/she got better).

Note: It is important to remember that the Self-Efficacy score is based on the relationship of the story characters' behavior to the outcome for the identified patient and NOT based on the Compliance score. Each scoring category should be considered independently.

Scoring Standards for the MCIST

Each of the five stories is scored separately in three categories: compliance with treatment, health optimism, and self-efficacy.

For each category responses to individual stories are scored 0, 1, or 2, according to specific criteria identified for each story. In general, higher scores reflect positive indications for the specific category in the story. If a the narrative story changes in a way which would affect the scoring (i.e., At first everything went fine, but in the end the child died), scores should be based only on the final outcome.

Three subscores are calculated as follows:

Compliance with Treatment Subscore (C): This equals the sum of the individual compliance score for each of the five stories and may range from a minimum of zero to a maximum score of ten.

Health Optimism Subscore (O): This is the sum of the health optimism scores for each of the five stories, also ranging from zero to ten.

Self-Efficacy Subscore (SE): This is the sum of the individual self-efficacy scores for each of the five stories, also ranging from zero to ten.

Total Competency/Compliance Score: This is produced by totaling the three subscores for each individual subject, yielding a range of scores from zero to thirty.

Scoring Criteria for the MCIST

Each of the five stories may be scored 0, 1, or 2, in each of three categories: compliance with treatment, health optimism, and self-efficacy. Scoring categories for each story follow.

Story 1

Compliance:

- 2 points [Bill accepts injection in a totally compliant manner with minimal protest]
- 1 point [Bill gets injection, but after some stalling, hesitation or over some objection or protest]
- 0 points [Bill somehow avoids the injection]

Optimism:

- 2 points [Spontaneous mention of some benefit or advantage of having the injection]
- 1 point [Vague or general mention of Bill's "best interest" or similar concept with respect to the injection]
- 0 points [Mention of disadvantage of injection, such as: "it hurts," or no mention of potential benefit]

Self-Efficacy:

- 2 points [Bill gets better by following medical advice or Bill gets worse due to not following medical advice]
- 1 point [Bill's future is uncertain or unknown. A simple "he gets better" or "Bill is fine" scores a 1, unless there is a specific statement that Bill's behavior led to the outcome.]
- 0 points [Outcome to Bill appears unrelated to his actions]

Story 2

Compliance:

- 2 points [Helen seeks or accepts examination/treatment (active role)]
- 1 point [Helen accepts (passive role) examination or treatment with some indication of reluctance]
- 0 points [Helen avoids medical treatment]

Optimism:

- 2 points [Helen is treated and gets better]
- 1 point [The outcome with respect to Helen's health is unresolved or ambiguous]
- 0 points [Helen's health gets worse]

Self-Efficacy:

- 2 points [Helen gets better by following medical advice or gets worse due to not following medical advice]
- 1 point [Helen's future is uncertain or unknown. A simple "she gets better" or "Helen is fine" scores a 1, unless there is a specific statement that Helen's behavior led to the outcome.]
- 0 points [Outcome to Helen does not appear to be related to her actions]

Story 3

Compliance:

- 2 points [Mike agrees to an amputation immediately]
- 1 point [Mike seeks a second opinion prior to agreeing to amputation]
- 0 points [Mike avoids or refuses amputation]

Optimism:

- 2 points [Mike gets better or is improved]
- 1 point [Mike's condition is unresolved or ambiguous]
- 0 points [Mike gets sicker or dies]

Self-Efficacy:

- 2 points [Mike gets better by following medical advice or gets worse due to not following medical advice]
- 1 point [Mike's future is uncertain or unknown. A simple "he gets better" or "Mike is fine" scores a 1, unless there is a specific statement that Mike's behavior led to the outcome.]
- 0 points [Outcome to Mike does not appear to be related to his actions]

Story 4

Compliance:

- 2 points [Jill seeks the new treatment, immediately and without hesitation]
- 1 point [Jill seeks more information before consenting to the new treatment or asks others to decide for her]
- 0 points [Jill seeks to avoid or reject the new treatment]

Optimism:

- 2 points [Jill gets better or improves]
- 1 point [Jill's condition is unchanged or ambiguous]
- 0 points [Jill's condition gets worse or she dies]

Self-Efficacy:

- 2 points [Jill gets better by following medical advice or Jill gets worse due to not following medical advice]
- 1 point [Jill's future is uncertain or unknown. A simple "she gets better" or "Jill is fine" scores a 1, unless there is a specific statement that Jill's behavior led to the outcome.]
- 0 points [Outcome to Jill appears unrelated to her actions]

Story 5

Compliance:

- 2 points [Henry complies fully with all of the recommended treatments]
- 1 point [Henry goes along with some of the recommendations, but is not substantially compliant with them]
- 0 points [Henry rejects the recommendations or refuses a substantial portion of them]

Optimism:

- 2 points [Henry's condition improves]
- 1 point [Henry's condition is unresolved or ambiguous]
- 0 points [Henry's condition gets worse]

Self-efficacy:

- 2 points [Henry gets better by following medical advice or gets worse due to not following medical advice]
- 1 point [Henry's future is uncertain or unknown. A simple "he gets better" or "Henry is fine" scores a 1, unless there is a specific statement that Henry's behavior led to the outcome.]
- 0 points [Outcome to Henry does not appear to be related to her actions]

MCIST SCORE SHEET

STORY 1:

Compliance = _____ Health Optimism = _____ Self-Efficacy = _____
Comments:

STORY 2:

Compliance = _____ Health Optimism = _____ Self-Efficacy = _____
Comments:

STORY 3:

Compliance = _____ Health Optimism = _____ Self-Efficacy = _____
Comments:

STORY 4:

Compliance = _____ Health Optimism = _____ Self-Efficacy = _____
Comments:

STORY 5

Compliance = _____ Health Optimism = _____ Self-Efficacy = _____
Comments:

Compliance	Health Optimism	Self-Efficacy
Subscore = _____	Subscore = _____	Subscore = _____

Overall Compliance/Competence Score = _____

Note: Subtest score ranges = 0 - 10
Overall score range = 0 - 30

Administration Instructions: Parent Form

This instrument was designed for use with the parents of school-aged children and adolescents diagnosed as having a chronic illness requiring ongoing medical treatment. The stories should be administered individually by reading them aloud to the parent. The stories should be read with expression to encourage the involvement and attention of the participant. A private or quiet setting, relatively free from distraction should be used.

The following instructions should be given verbatim:

"I am going to tell you a number of stories about people like you who are faced with making a decision about health care. Please listen carefully to each story and make up an ending for each one. Your story endings should tell what each person decides to do and what eventually happens to that person. There are no right or wrong answers. Simply make up an ending that seems sensible to you. Be sure to tell me what the person decides to do and what happens."

Each answer should be recorded verbatim by the person administering the test. Stories may be re-read if the participant requests or if the test administrator believes that the participant was not paying attention or did not understand the story the first time.

The administrator should become familiar with the criteria for scoring each story, and be sure that sufficient data is obtained in each narrative to permit adequate scoring. If the administrator does not believe that a given narrative presents an adequate basis for scoring, the participant should be asked focused non-directive questions to gain the additional information needed.

Examples might include:

"What did the person in the story decide to do?"

"Did the person follow the advice exactly?"

"Did the people do it right away?"

"How did that affect the person's health/illness?"

"What do you think the future will be like for that person?"

The Medical Compliance Incomplete Stories Parent Form (MCIST-PF)

Story 1:

Mr. and Mrs. Jones took their son Bill to the doctor for a checkup and were surprised when the doctor said "Bill hasn't had a booster shot in quite some time. I think I should give him one today." How do you think Bill's parents responded to this?

Story 2:

Mr. and Mrs. Black's daughter Helen had been sick for two days. On the third day she told her parents that she had a headache, a stomach ache, and felt as though she might have to vomit. How do you think Helen's parents responded to this?

Story 3:

The doctor came into the hospital waiting room and told Mr. and Mrs. Woods that their son Mike needed to have a serious operation. His right foot was diseased and it would have to be taken off, or else he might die. Mike's parents knew that his foot was sore, but they had not realized just how serious it was. How do you think Mike's parents responded to this?

Story 4:

Mr. and Mrs. Brown's daughter Jill had been sick for a long time, almost two years. Sometimes their daughter feels better for a couple of months, and then gets sick again for a time. Her doctor called Mr. and Mrs. Brown up one morning to tell them about a new treatment. It was so new that the doctor did not know whether it would work for Jill or not. Sometimes it seemed to help some people with the same problem as Jill, but at other times it did not help or even seemed to make things worse. How do you think Jill's parents responded to this?

Story 5:

Mr. and Mrs. Smith's son Henry was born with a disease that he will have for his whole life. A lot of the time their son feels perfectly well and not sick at all. Sometimes they even forget he has a medical problem. The doctors told Mr. and Mrs. Smith that Henry would have to do special exercises and take ten pills every day to try and stay well. How do you think Henry's parents responded to this?

Scoring Standards for the MCIST-PF

Each of the five stories is scored separately in three categories: compliance with treatment, health optimism, and self-efficacy. For each category responses to individual stories are scored 0, 1, or 2, according to specific criteria identified for each story. In general, higher scores reflect positive indications for the specific category in the story.

Three subscores are calculated:

Compliance with Treatment Subscore (C): This equals the sum of the individual compliance score for each of the five stories and may range from a minimum of zero to a maximum score of ten.

Health Optimism Subscore (O): This is the sum of the health optimism scores for each of the five stories, also ranging from zero to ten.

Self-Efficacy Subscore (SE): This is the sum of the individual self-efficacy scores for each of the five stories, also ranging from zero to ten.

A total **Competence/Compliance Score** is produced by totaling the three subscores for each individual subject, yielding a range of scores from zero to thirty.

Scoring Criteria for the MCIST-PF

Each of the five stories may be scored 0, 1, or 2, in each of three categories: compliance with treatment, health optimism, and self efficacy.

Story 1

Compliance:

- 2 points [Bill's parents agree with Bill getting the injection without delay]
1 point [Bill's parents question the doctor prior to agreeing to Bill getting the booster shot]
0 points [Bill does not get the injection]

Optimism:

- 2 points [Bill is "better", "ok", "fine", "improves", etc.; The use of qualifying words and/or phrases (i.e., "hopefully", "I guess", "probably", etc.) should be interpreted as representing optimism rather than uncertainty]
1 point [Bill's condition is uncertain or unresolved]
0 points [Bill's health gets worse]

Self-Efficacy:

- 2 points [The outcome for Bill (i.e., Bill is "fine", "better", "ok", "improves", etc.) appears to be related to the actions of the story characters, which may include passive behaviors in accordance with medical advice]
1 point [Bill's future is uncertain or unknown]
0 points [The outcome for Bill appears unrelated to the actions of the story characters]

Story 2

Compliance:

- 2 points [Helen's parents seek medical consultation without delay]
- 1 point [Helen's parents wait some time period prior to seeking medical consultation]
- 0 points [Helen's parents do not seek medical consultation]

Optimism:

- 2 points [Helen is "better", "fine", "ok", "improves", etc.; The use of qualifying words and/or phrases (i.e., "hopefully", "I guess", "probably", etc.) should be interpreted as representing optimism rather than uncertainty]
- 1 point [Helen's health is uncertain or unresolved]
- 0 points [Helen's health gets worse]

Self-Efficacy:

- 2 points [The outcome for Helen (i.e., Helen is "fine", "better", "ok", improves", etc.) appears to be related to the action of the story characters, which may include passive behaviors in accordance with medical advice.]
- 1 point [Helen's future is uncertain or unknown]
- 0 points [The outcome for Helen appears unrelated to the actions of the story characters]

Story 3

Compliance:

- 2 points [Mike's parents agree to an amputation without delay]
- 1 point [Mike's parents seek further medical consultation prior to agreeing to the amputation]
- 0 points [Mike does not get the amputation]

Optimism:

- 2 points [Mike is "better", "fine", "ok", "improves", etc.; The use of qualifying words and/or phrases (i.e., "hopefully", "I guess", "probably", etc.) should be interpreted as optimism rather than uncertainty]
- 1 point [Mike's health is uncertain or unresolved]
- 0 points [Mike's health gets worse and/or he dies]

Self-Efficacy:

- 2 points [The outcome for Mike (i.e., Mike is "fine", "better", "ok", "improves", etc.) appears to be related to the action of the story characters, which may include passive behaviors in accordance with medical advice]
- 1 point [Mike's future is uncertain or unknown]
- 0 points [The outcome for Mike appears unrelated to the actions of the story characters]

Story 4

Compliance:

- 2 points [Jill's parents agree to the new treatment without delay]
- 1 point [Jill's parents seek more information prior to consenting to the new treatment]
- 0 points [Jill does not get the new treatment]

Optimism:

- 2 points [Jill is "better", "fine", "ok", "improves", etc.; The use of qualifying words and/or phrases(i.e., "hopefully", "I guess", "probably", etc.) should be interpreted as representing optimism rather than uncertainty]
- 1 point [Jill's health is uncertain or unresolved]
- 0 points [Jill's health gets worse]

Self-Efficacy:

- 2 points [The outcome for Jill (i.e., Jill is "fine", "better", "ok", "improves", etc.) appears to be related to the action of the story characters, which may include passive behaviors in accordance with medical advice]
- 1 point [Jill's future is uncertain or unknown]
- 0 points [The outcome for Jill appears unrelated to the action of the story characters]

Story 5

Compliance:

- 2 points [Henry's parents see that Henry complies with the recommended treatment program without delay]
- 1 point [Henry's parents see that Henry goes along with the recommended treatment program with some alterations and/or delay in the recommended treatment program]
- 0 points [Henry does not comply with a substantial portion of the recommended treatment program]

Optimism:

- 2 points [Henry is "better", "fine", "ok", "improves", etc.; The use of qualifying words and/or phrases (i.e., "hopefully", "I guess", "probably", etc.) should be interpreted as optimism rather than uncertainty]
- 1 point [Henry's health is uncertain or unresolved]
- 0 points [Henry's health is worse]

Self-Efficacy:

- 2 points [The outcome for Henry (i.e., Henry is "fine", "better", "ok", "improves", etc.) appears to be related to the actions of the story characters, which may include passive behaviors in accordance with medical advice]
- 1 point [Henry's future is uncertain or unknown]
- 0 points [The outcome for Henry appears to be unrelated to the action of the story characters]

MCIST-PF Score Sheet

STORY 1:

Compliance = _____ Health Optimism = _____ Self-Efficacy = _____
Comments:

STORY 2:

Compliance = _____ Health Optimism = _____ Self-Efficacy = _____
Comments:

STORY 3:

Compliance = _____ Health Optimism = _____ Self-Efficacy = _____
Comments:

STORY 4:

Compliance = _____ Health Optimism = _____ Self-Efficacy = _____
Comments:

STORY 5

Compliance = _____ Health Optimism = _____ Self-Efficacy = _____
Comments:

Compliance Health Optimism Self-Efficacy
Subscore = _____ Subscore = _____ Subscore = _____

Overall Compliance/Competence Score = _____

Note: Subtest score ranges = 0 - 10
Overall score range = 0 - 30

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NOTE: *Users of the MCIST are encouraged to send copies of any published studies to Dr. Koocher at the Children's Hospital, 300 Longwood Avenue, Boston, MA 02115-5737, so that they may be added to this list of related publications.*