What process research tells about Screening and Brief Intervention (SBI) efficacy

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Nicolas Bertholet
Jacques Gaume

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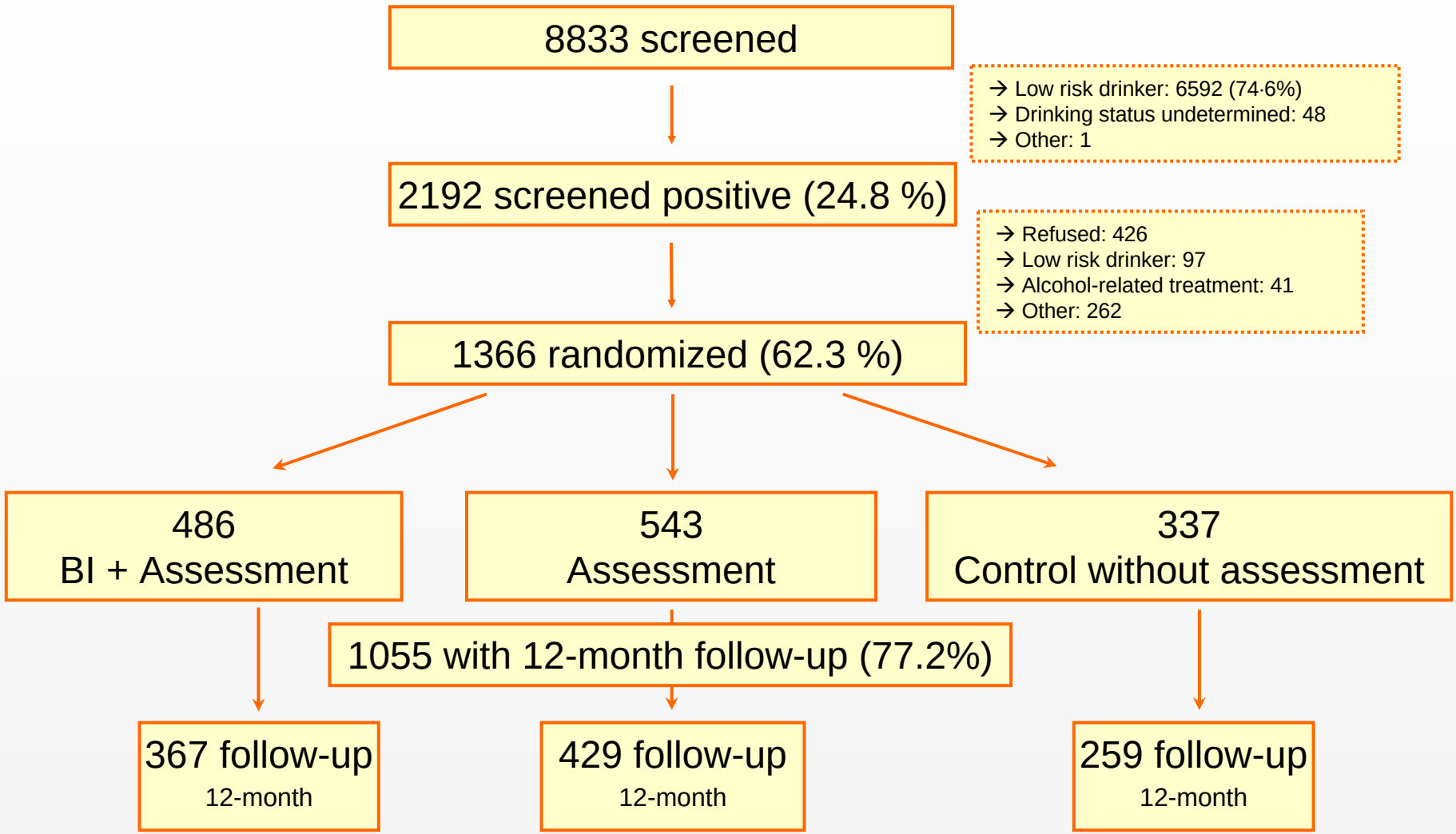
Symposium presented at the 6th Annual Conference of the International Network on Brief Interventions for Alcohol Problems (INEBRIA), 8-9th October 2009, Gateshead, UK

Intervention

Using an **empathic style** avoiding any confrontation

1. Thank for participation, reassure about confidentiality and assure that any decision about treatment belongs to the patient
2. **Give feedback** about alcohol use
3. **Ask patient to comment about feedback**, about the relationship between alcohol use and injury. Ask permission and provide comment regarding the association between alcohol use and risk of injury or other medical conditions
4. **Ask about the "pros" and "cons" of individual's alcohol use**
5. **Ask about importance to change and readiness to change** on 1-10 scale
6. **Ask what objective patient feels ready** to complete.
7. Depending on patient's own objective, **affirm patient's self-efficacy** to achieve his/her objective
8. **Give a summary document** including patient's own AUDIT score compared to the general population, and objectives

Design


8833 screened
→ Low risk drinker: 6592 (74·6%)
→ Drinking status undetermined: 48
→ Other: 1
2192 screened positive (24.8 %)
→ Refused: 426
→ Low risk drinker: 97
→ Alcohol-related treatment: 41
→ Other: 262
1366 randomized (62.3 %)
486
BI + Assessment
543
Assessment
337
Control without assessment
1055 with 12-month follow-up (77.2%)
367 follow-up
12-month
429 follow-up
12-month
259 follow-up
12-month

Symposium overview

- Main results, *JB Daeppen*
- Communication During Brief Intervention,Intention to Change, and Outcome, *JB Daeppen*
- Do counselors' and patients' characteristics communication predict change? *J Gaume*
- Counselor behaviors and patient language during brief motivational interventions: a sequential analysis of speech, *J Gaume*
- Counselor skill influences outcomes of brief motivational interventions, *J Gaume*
- Change talk during brief motivational intervention: towards or away from drinking, *N Bertholet*
- So, what does all this tell us? *JB Daeppen*

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Results

Baseline to 12-month differences

	SBI	Control with assessment	Control w/o assessment	p value
N	367	429	259	
# Days drinking per week (last 12-mo) (SD)	-0.4 (1.8)	-0.4 (1.8)	-0.5 (2.0)	0.59
# Drinks per drinking occasion (last 12-mo) (SD)	-0.4 (2.5)	-0.5 (2.8)	-0.4 (2.7)	0.90
# Binge drinking occasions per mo (last 12-mo) (SD)	-0.7 (7.0)	-0.7 (6.2)	-0.3 (6.8)	0.58
AUDIT score (SD)	-1.8 (3.8)	-1.9 (4.6)	-	0.94
% changed to low-risk drinking at follow-up	35.69	35.20	37.07	0.88

GEE model predicting change to low risk drinking at 12 month follow-up

N = 796	Odds-ratio	95% CI	Wald	P value
SBI	1.00	[0.74 – 1.33]	0.03	0.87
Men	0.56	[0.41 – 0.76]	14.18	< 0.001
18-30 years	0.96	[0.79 – 1.15]	0.22	0.64
51-65 years	1.47	[1.17 – 1.85]	10.72	0.001
66+	1.57	[1.06 – 2.35]	4.99	0.025
AUDIT > 12	1.54	[1.16 – 2.03]	9.24	< 0.01
Trauma	0.96	[0.74 – 1.24]	0.10	0.76
(Intercept)	0.74	[0.59 – 0.93]	6.69	0.01

- Covariates determined based on prior SBI research
- GEE model adjusted for clustering of patients by intake research assistant

- Null finding also applied for patients previously considered likely to benefit from SBI, i.e., non alcohol-dependent hazardous drinkers and young patients attending the ED after a trauma
- Data did not demonstrate any assessment effect
- Limitations to the efficacy of SBI observed may be explained by
  - The setting: a busy environment, noisy, frequent interruptions may hinder the empathic style of SBI
  - A large proportion of young patients with minor trauma who may be using ED as a primary care
  - A single intervention without booster session, without continuous relationship between patient and provider

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Communication During Brief Intervention, Intention to Change, and Outcome

Jean-Bernard Daeppen, MD
Nicolas Bertholet, MD
Gerhard Gmel, PhD
Jacques Gaume, MA

SUMMARY. *Objectives*: To explore the relationship between patient's intention to change regarding future alcohol consumption following brief alcohol intervention (BAI) and changes in alcohol consumption 12-months later and the communication characteristics between patient and counselor during BAI.

[Haworth co-indexing entry note]: "Communication During Brief Intervention, Intention to Change, and Outcome." Daeppen, Jean-Bernard et al. Co-published simultaneously in *Substance Abuse* (The Haworth Medical Press, an imprint of The Haworth Press, Inc.) Vol. 28, No. 3, 2007, pp. 43-51; and: *Alcohol/Drug Screening and Brief Intervention: Advances in Evidence-Based Practice* (ed: Richard Saitz, and Marc Galanter) The Haworth Medical Press, an imprint of The Haworth Press, Inc., 2007, pp. 43-51. Single or multiple copies of this article are available for a fee from The Haworth Document Delivery Service [1-800-HAWORTH, 9:00 a.m. - 5:00 p.m. (EST). E-mail address: docdelivery@haworthpress.com].

TABLE 2. Alcohol Use and Other Characteristics According to Patient Intention Immediately Following BAI (N = 367).

	Intention		
	Decrease (N=134)	**No decrease (N=233)**	**p value**
Weekly drinking amount			
Baseline, Mean (SD)	15.6 (14.0)	11.5 (9.2)	0.01 (w)
12-month follow-up, Mean (SD)	12.5 (16.1)	9.9 (8.4)	0.97 (w)
Baseline to 12-month difference, Mean (SD)	3.1 (13.3)	1.5 (9.0)	0.02 (w)
Heavy drinking episodes per month			
Baseline, Mean (SD)	6.0 (7.9)	3.4 (5.6)	0.00 (w)
12-month follow-up, Mean (SD)	3.9 (6.4)	3.5 (5.7)	0.83 (w)
Baseline to 12-month difference, Mean (SD)	2.3 (8.4)	-0.1 (6.0)	0.00 (w)
AUDIT Score			
Baseline, Mean (SD)	11.2 (6.1)	7.9 (3.5)	0.00 (w)
12-month follow-up, Mean (SD)	8.3 (6.1)	6.6 (3.4)	0.03 (w)
Baseline to 12-month difference, Mean (SD)	2.8 (5.7)	1.3 (3.5)	0.00 (w)
Readiness Rulers Scores (baseline)			
Importance [1-10], Mean (SD)	5.2 (2.5)	2.9 (1.9)	0.00 (w)
Readiness [1-10], Mean (SD)	5.7 (2.4)	3.2 (2.6)	0.00 (w)
Counselor subjective evaluation of BAI effectiveness (baseline)			
% "rather effective" or "very effective" (N)	71.6 (96)	27.8 (64)	0.00(c)

Note: (c) = Pearson's Chi Square test, (w) = Wilcoxon W test.

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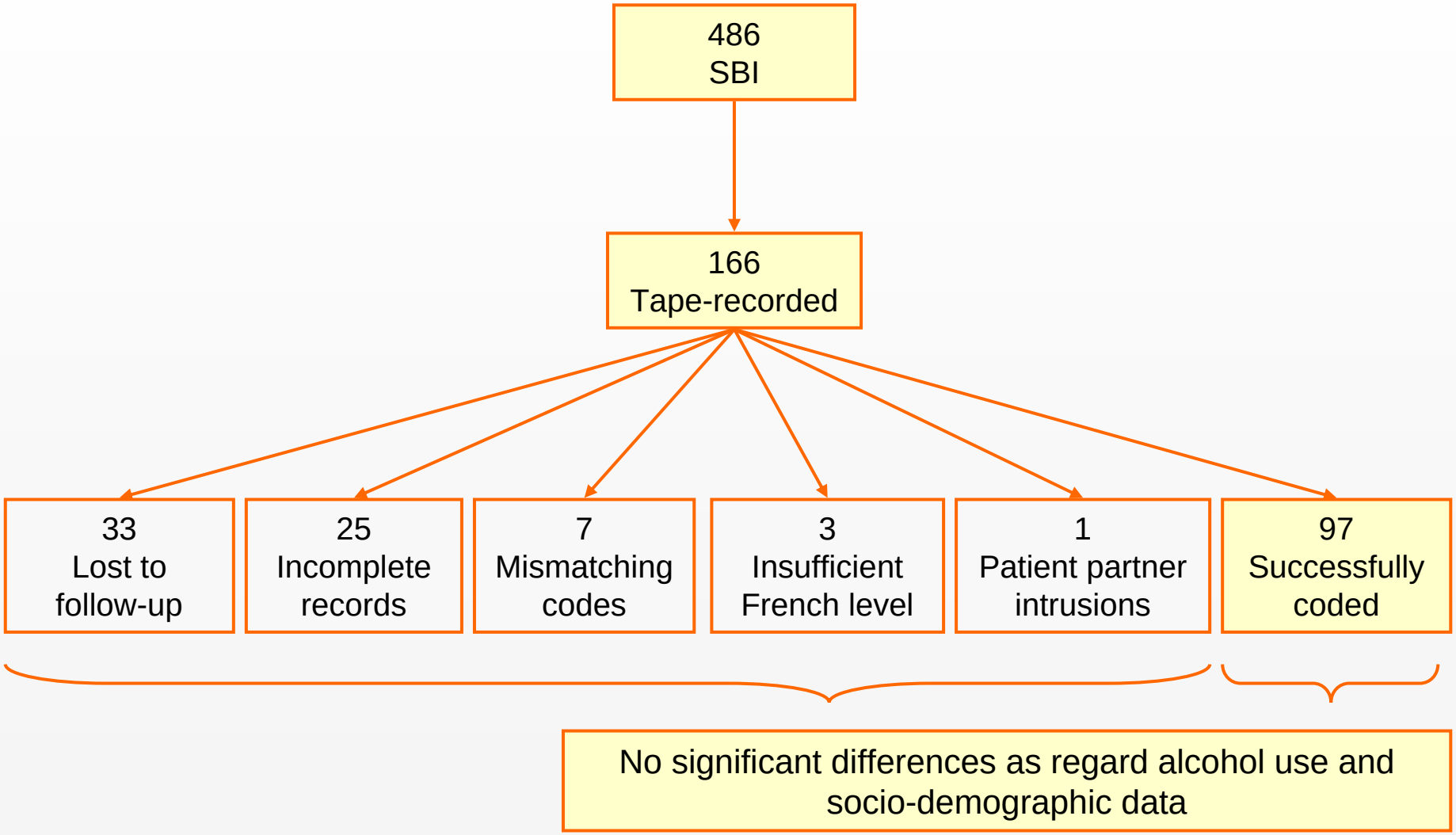
BRIEF ALCOHOL INTERVENTIONS: DO COUNSELLORS' AND PATIENTS' COMMUNICATION CHARACTERISTICS PREDICT CHANGE?

JACQUES GAUME*, GERHARD GMEL, and JEAN-BERNARD DAEPPEN

- Describe intervention content
- Identify communication characteristics of patients and counsellors which predict change on alcohol consumption 12 months later

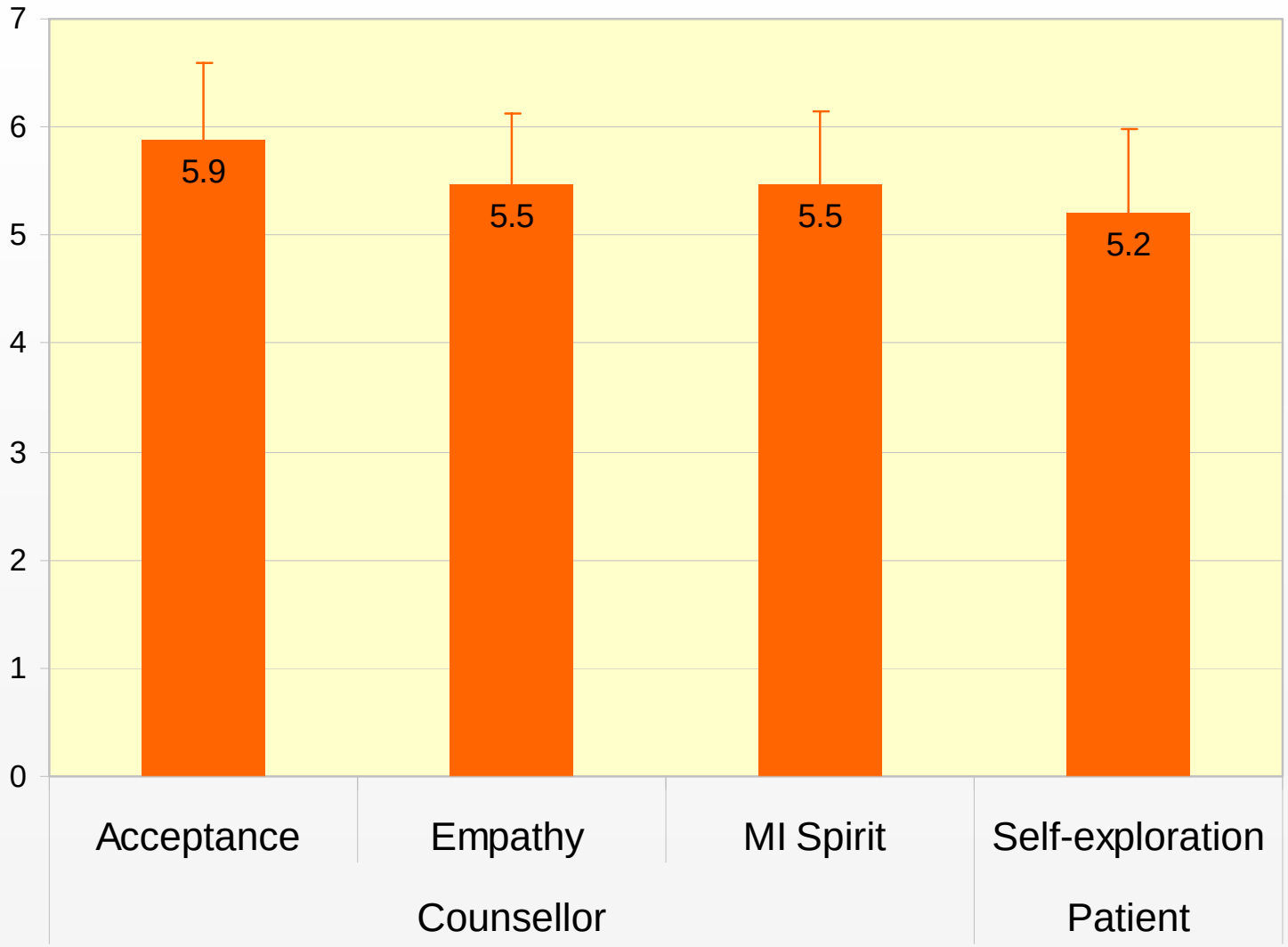
Coding process



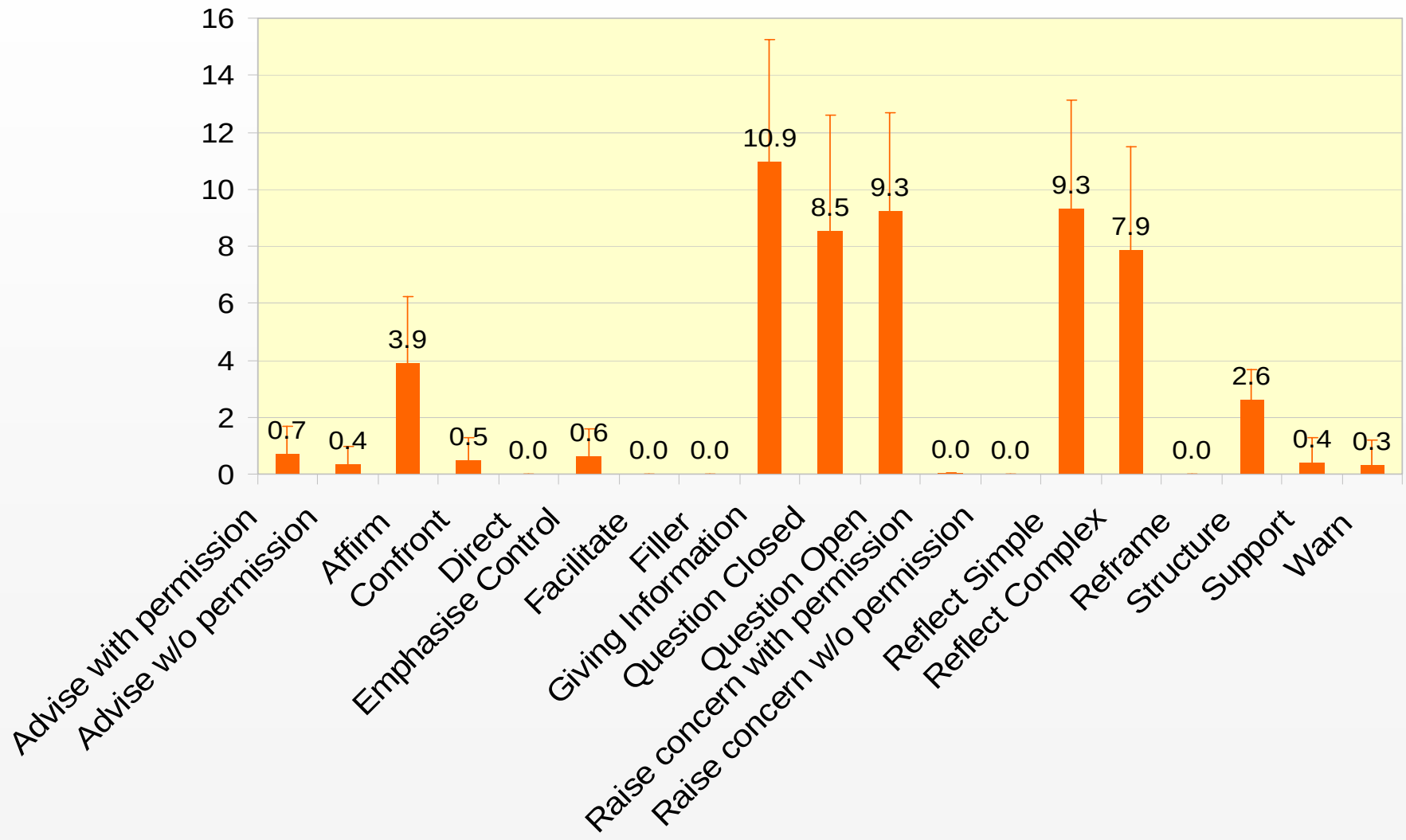
MISC 2.0 (Miller et al, 2003)

1. Global ratings (7-points Likert scale) :
   - overall impression of counselor *Acceptance*, *Empathy* and *MI Spirit*
   - patient highest level of *Self-exploration*
2. Behavior counts :
   - Counselor - 19 categories
     Advise with permission, *Advise without permission*, *Affirm*, *Confront*, *Direct*, *Emphasize control*, *Facilitate*, *Filler* , *Giving information*, *Closed question*, *Open question*, *Raise concern with permission*, *Raise concern without permission*, *Simple reflections*, *Complex reflections*, *Reframe*, *Structure*, *Support*, and *Warn*
   - Patient - 8 categories
     Ability or inability to change, *Commitment to change or not to change*, *Desire to change or not to change*, *Need to change versus lack of need for change, or a need not to change*, *Reasons to change or reasons not to change*, *Taking steps toward or away from change, Neutral/follow, Questions*

Global scores

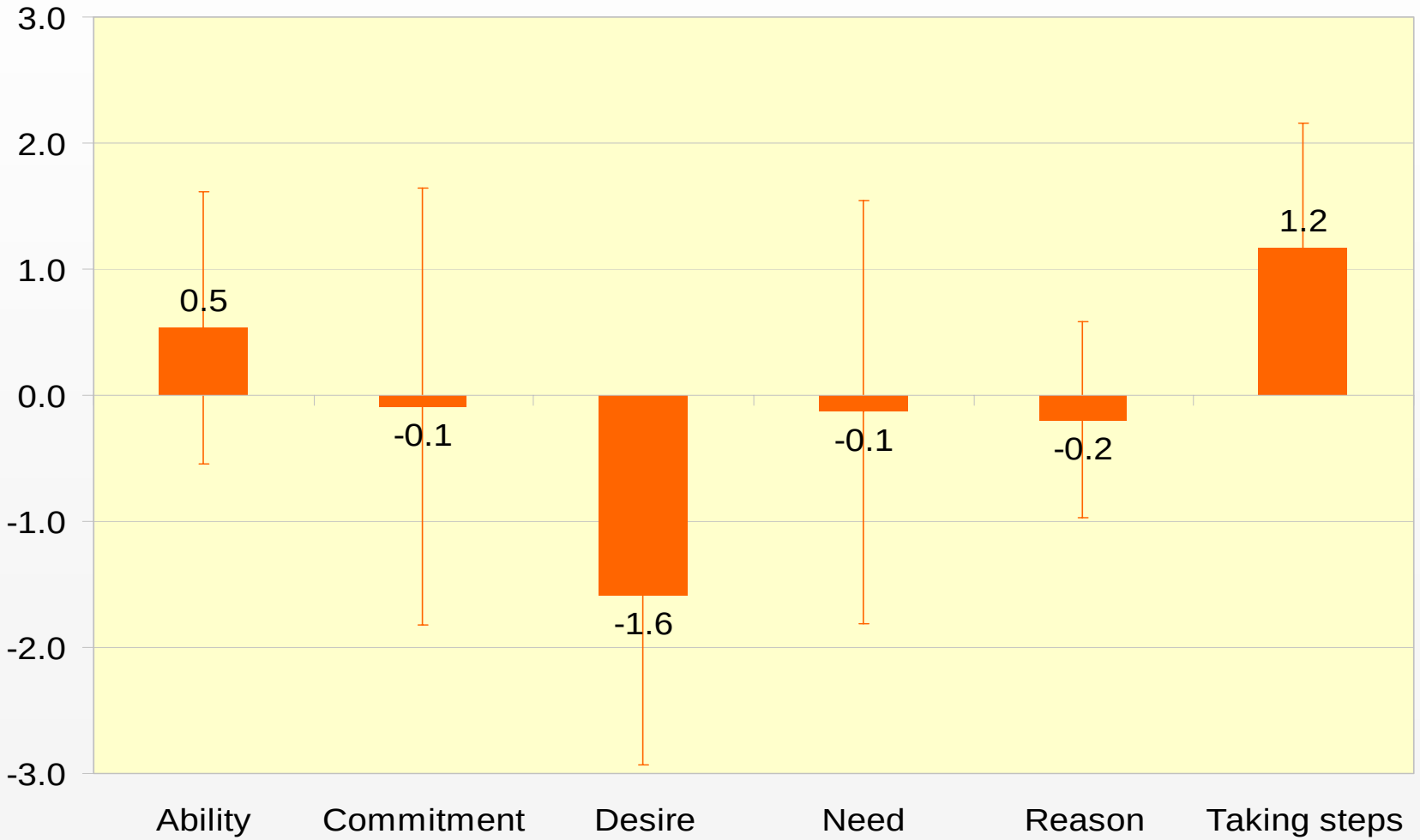


Counsellor behaviour counts



Patient change talk average strength

Examples: « I absolutely don't want to quit » → Desire -5
« I think I can stop drinking every week-end » → Ability +2



Baseline to 12-month difference in weekly drinking amount – Significant correlations ($p<0.05$)

		Kendall tau-b	p
Counsellor	Empathy [Likert scale 1-7]	0.16	0.04
Patient	Ability / Inability to change [-5 to +5]	0.21	0.005

Baseline to 12-month difference in weekly drinking amount – Multiple linear regression model

	B	Robust Std. Err.	P value
Constant	-19.29	14.26	0.18
Adjustment variables			
Age	0.00	0.07	0.96
Sex	-0.03	1.49	0.98
AUDIT Score > 12	1.17	3.80	0.76
Counselor Behaviors			
Empathy [Likert scale 1-7]	3.48	2.19	0.12
Patient Behaviors			
Ability / Inability to change [Average Strength, +5 to –5]	2.78	1.41	0.05

Baseline to 12-month difference in binge drinking episodes per month – Significant correlations (p<0.05)

		Kendall tau-b	p
Counsellor	Empathy [Likert scale 1-7]	0.18	0.03
	Advise with permission [Freq]	0.15	0.05
	Affirm [Freq]	0.21	0.005
Patient	Ability / Inability to change [-5 to +5]	0.17	0.02
	Taking steps toward change / away from change [-5 to +5]	0.21	0.004

Baseline to 12-month difference in binge drinking episodes per month – Multiple linear regression model

	B	Robust Std. Err.	P value
Constant	-4.99	7.26	0.49
Adjustment variables			
Age	0.02	0.03	0.56
Sex	0.90	0.94	0.34
AUDIT Score > 12	1.05	2.46	0.67
Counselor Behaviors			
Empathy [Likert scale 1-7]	-0.09	1.39	0.95
Advise with permission [Frequency]	0.06	0.69	0.93
Affirm [Frequency]	0.48	0.28	0.09
Patient Behaviors			
Ability / Inability to change [Average Strength, +5 to –5]	0.39	0.72	0.59
Taking steps toward change / away from change [Average Strength, +5 to –5]	0.87	0.78	0.27

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Addiction

RESEARCH REPORT

doi:10.1111/j.1360-0443.2008.02337.x

Counsellor behaviours and patient language during brief motivational interventions: a sequential analysis of speech

Jacques Gaume, Gerhard Gmel, Mohamed Faouzi & Jean-Bernard Daeppen

- Address SBI process by analyzing how do counselor and patient communication behaviors articulate during session
  - → Do MI-consistent behaviors lead to CT and MI-inconsistent behaviours to patient resistance?
  - → How do counselors respond to patient CT and resistance?

Background: Change talk

- Eliciting change talk has been seen as an important precursor of real change in the MI theory (Miller & Rollnick, 1991; 2002)

  i.e. patients saying they

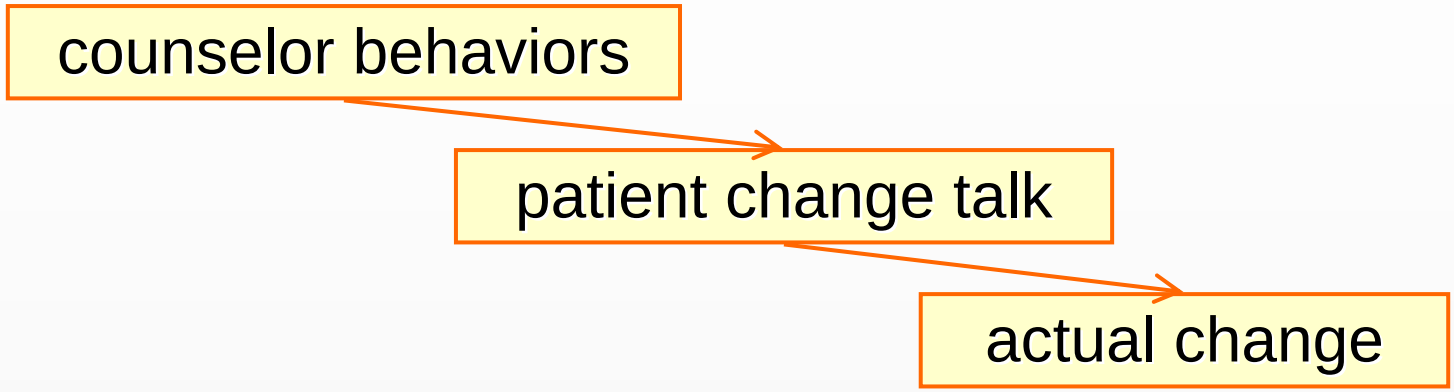
  → want,
  → need,
  → are able,
  → have reasons,
  → commit,
  → are taking steps to change

  will probably change actually.

  (Amrhein et al. 2003, Strang and McCambridge 2004, Moyers et al. 2008, Gaume et al. 2008)

Articulation
Counselor behaviors – Patient change talk

- Causal chain hypothesis:



- Only 1 study (MI sessions): Moyers and Martin, 2006
  - counselor behaviors consistent with MI theory more likely to be followed by change talk
  - counselor behaviors inconsistent with MI theory more likely to be followed by patient resistance

Methods

- Counselor behaviors summarized in 3 categories:
  - MICO MI-consistent behaviors
    (advise with permission, affirm, emphasize control, open question, simple and complex reflections, reframe, and support)
  - MIIN MI-inconsistent behaviors
    (advise without permission, confront, direct, raise concern without permission, and warn)
  - Other Other categories of counselor behaviors
    (facilitate, filler, giving information, closed question, raise concern with permission, and structure)
- Patient language summarized in 3 categories:
  - CT Change talk
    (Expression of Ability, Commitment, Desire, Need, Reasons to change, or Taking steps toward change)
  - CCT Counter change talk
    (Expression of Ability, Commitment, Desire, Need, Reasons not to change, or Taking steps away from change)
  - F/A Following and neutral utterances / patient questions

Observed frequencies for each transition type

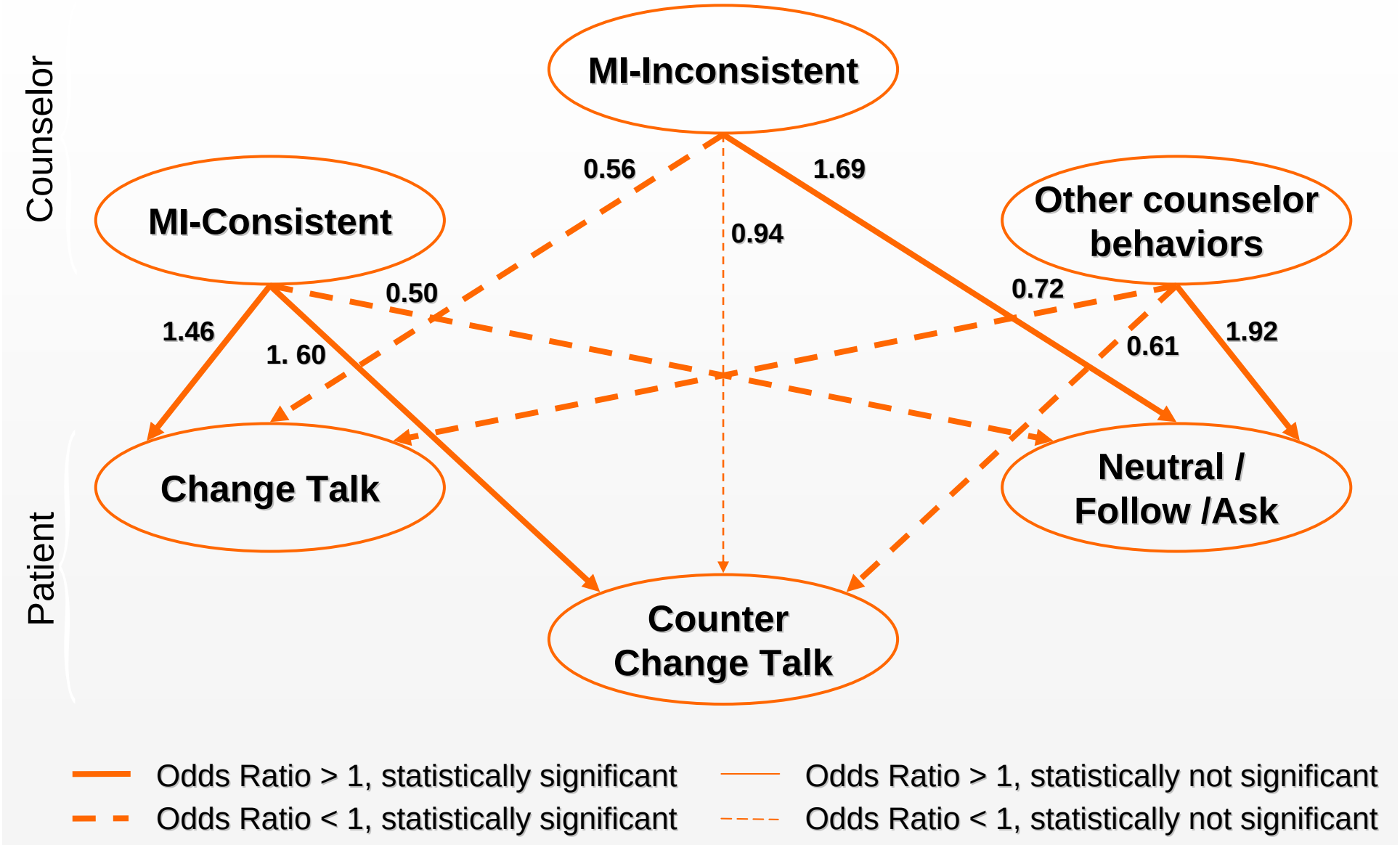
Initial event \ Subsequent event		Counselor			Patient			Totals
		MICO	MIIN	Other	CT	CCT	F/A	
Counselor	MICO	324	19.5	306.5	919	661	859	3089
	MIIN	11.5	2	13	21	21	47.5	116
	Other	216	16.5	767.5	299.5	186	521	2006.5
Patient	CT	872	21.5	336	431	229	188	2077.5
	CCT	668.5	23	205	199.5	428.5	191.5	1716
	F/A	876	33.5	512.5	195	187.5	409.5	2214
Totals		2968	116	2140.5	2065	1713	2216.5	11219

Scores are averaged betw een the 2 coders.

MICO = Motivational Interview ing Consistent
MIIN = Motivational Interview ing Inconsistent
Other = Other counselor skills

CT = Change Talk
CCT = Counter Change Talk
F/A = Follow /neutral or ask statements

Counselor to Patient transition likelihood (ORs)



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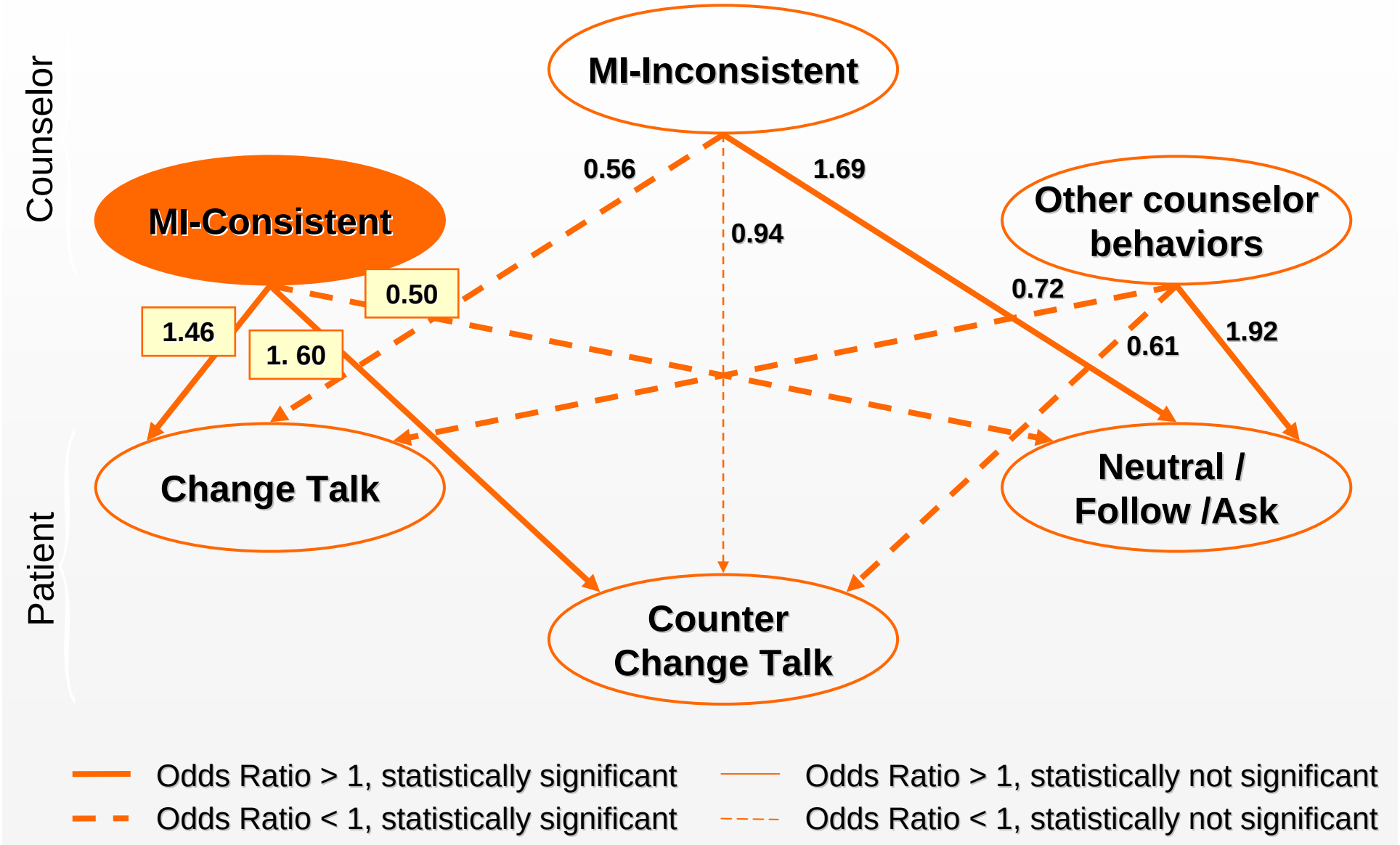

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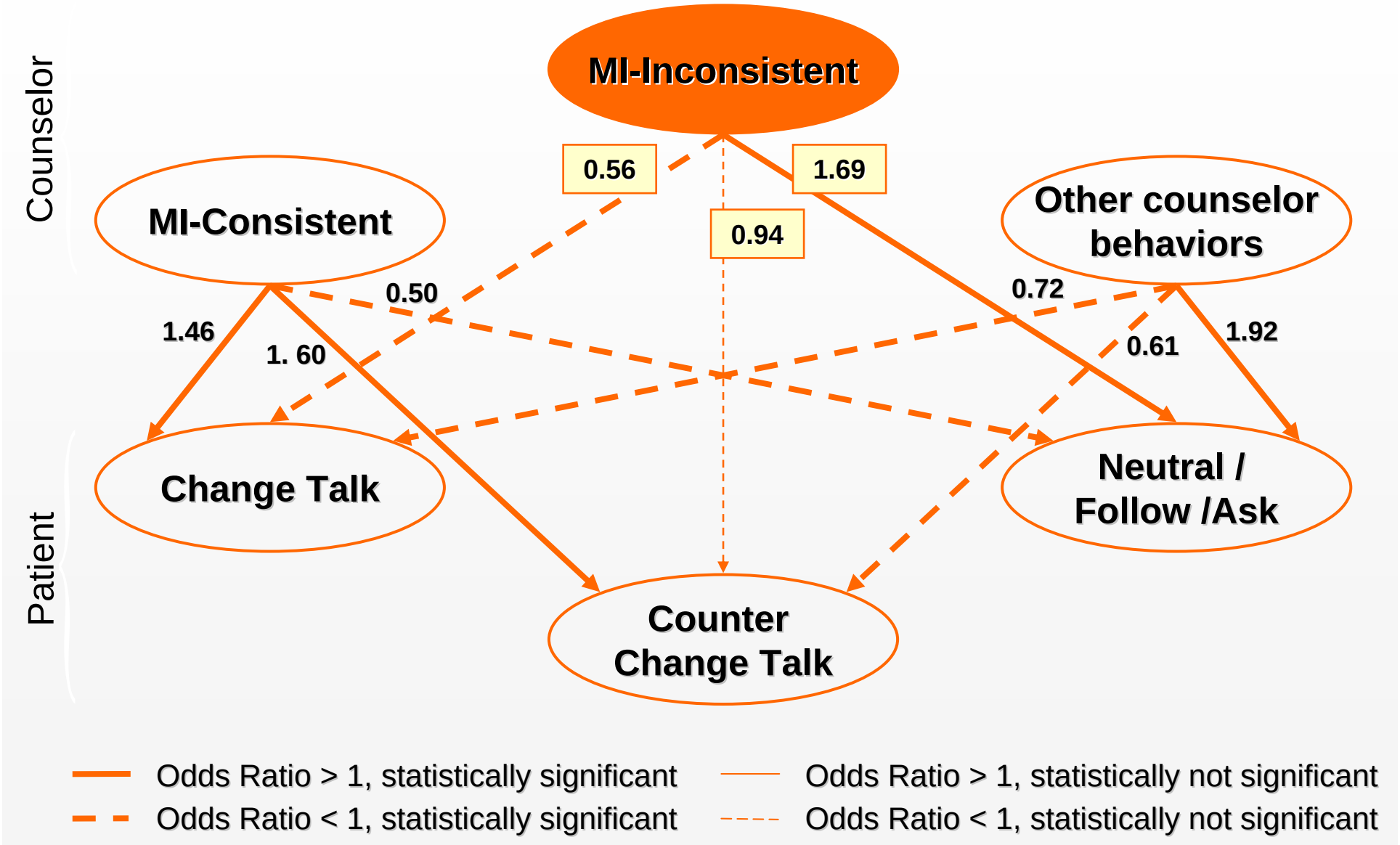

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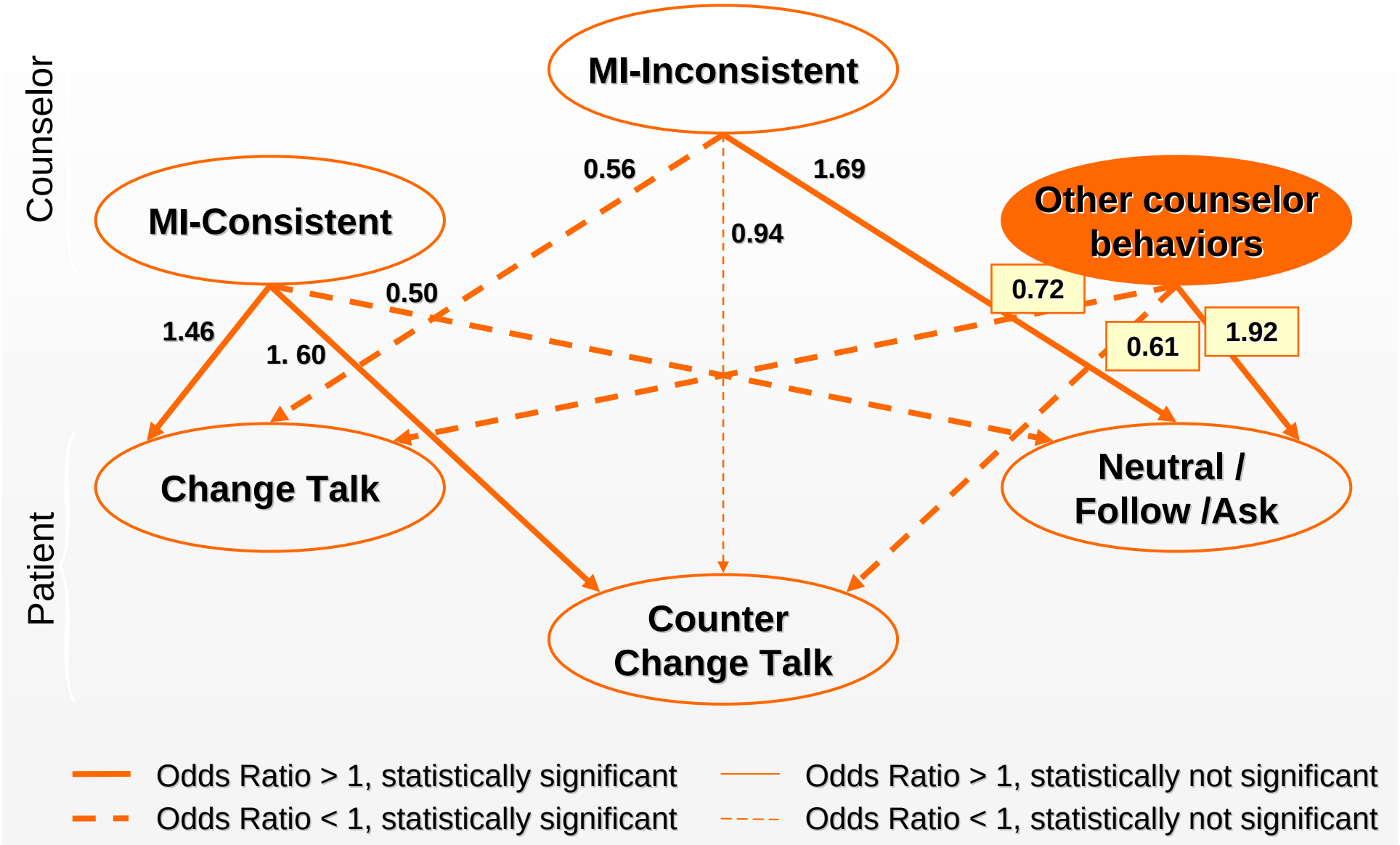

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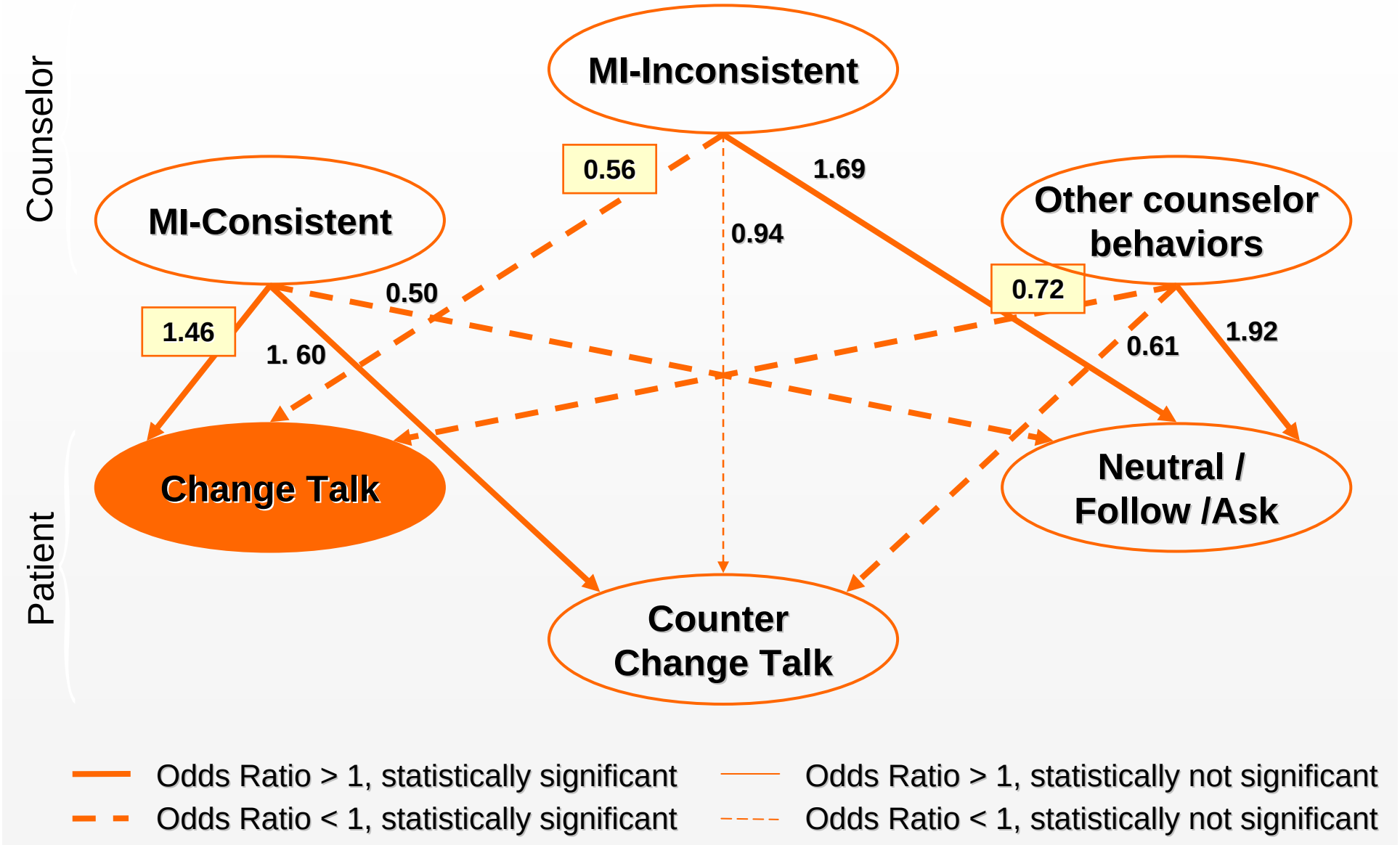
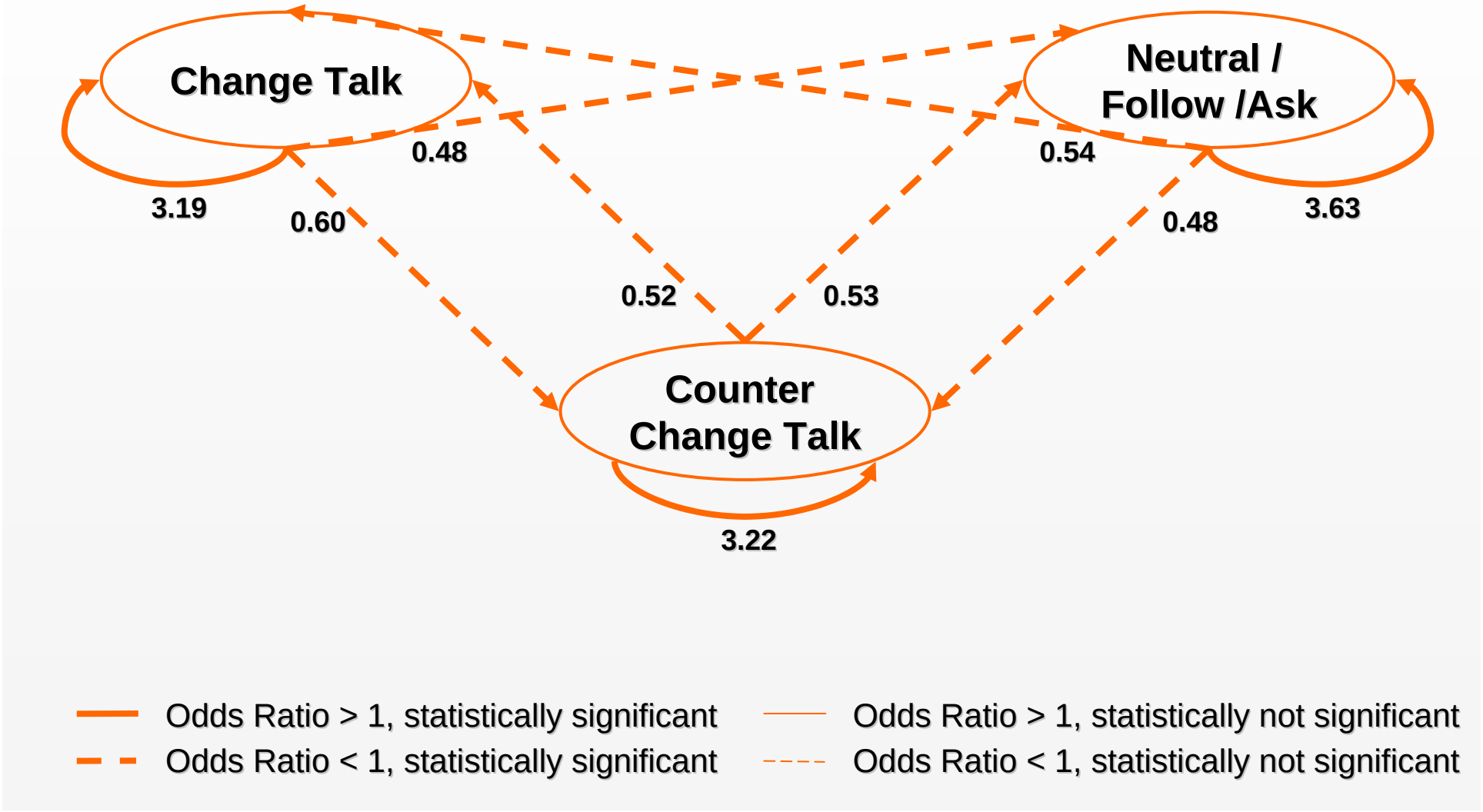


Patient to Patient transition likelihood (ORs)



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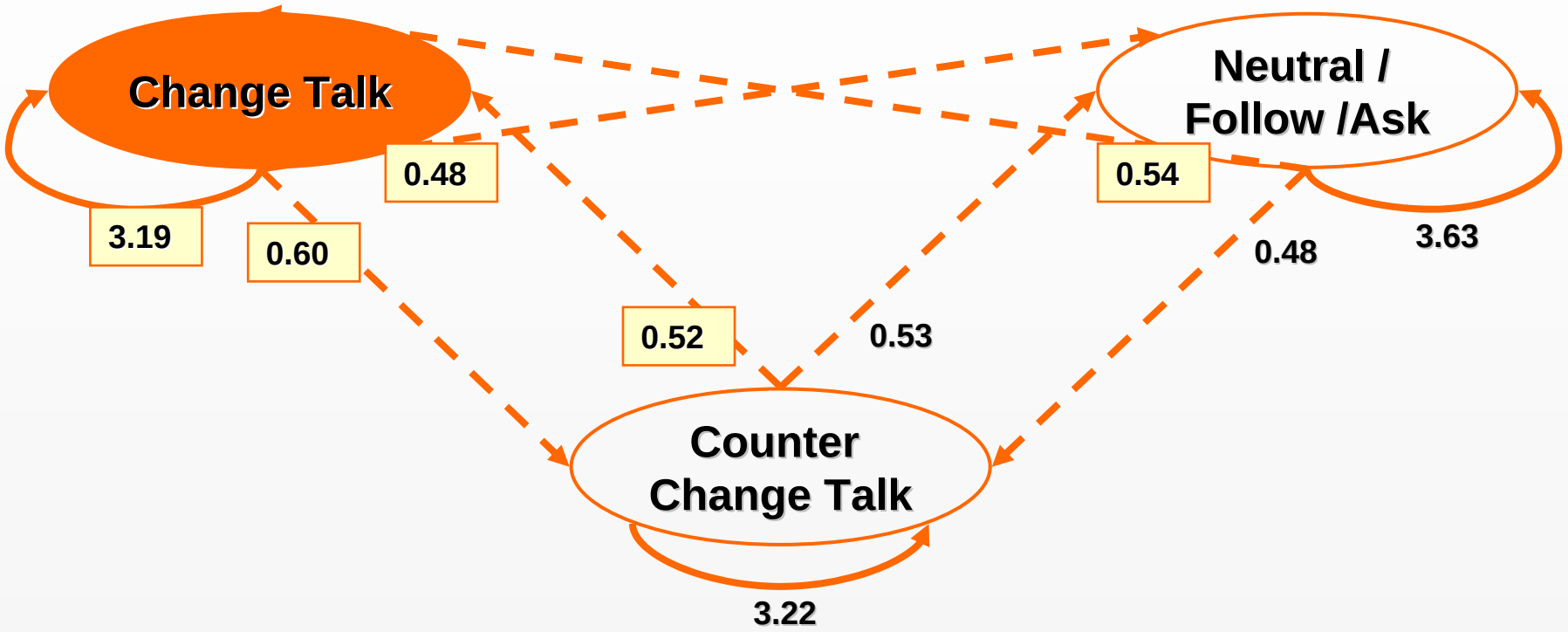


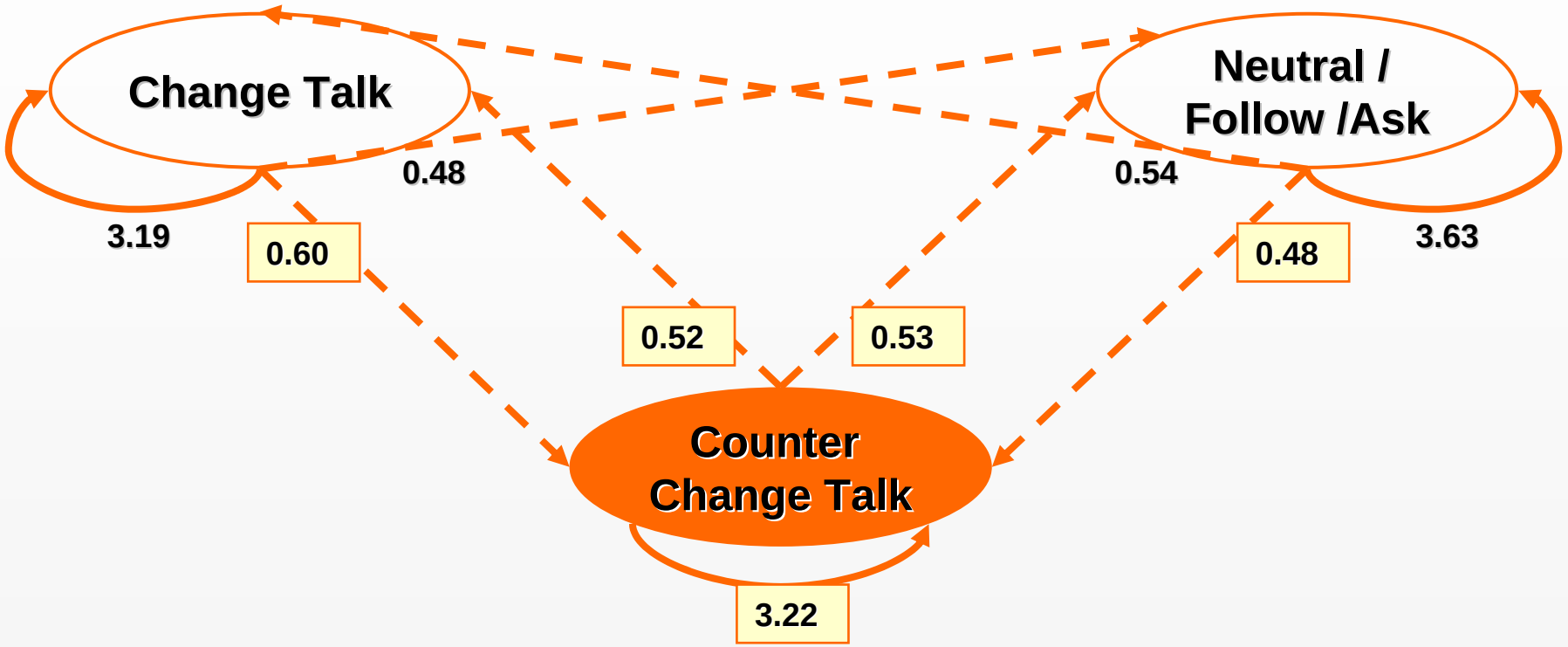
Odds Ratio > 1, statistically significant

Odds Ratio < 1, statistically significant

Odds Ratio > 1, statistically not significant

Odds Ratio < 1, statistically not significant

Patient to Patient transition likelihood (ORs)



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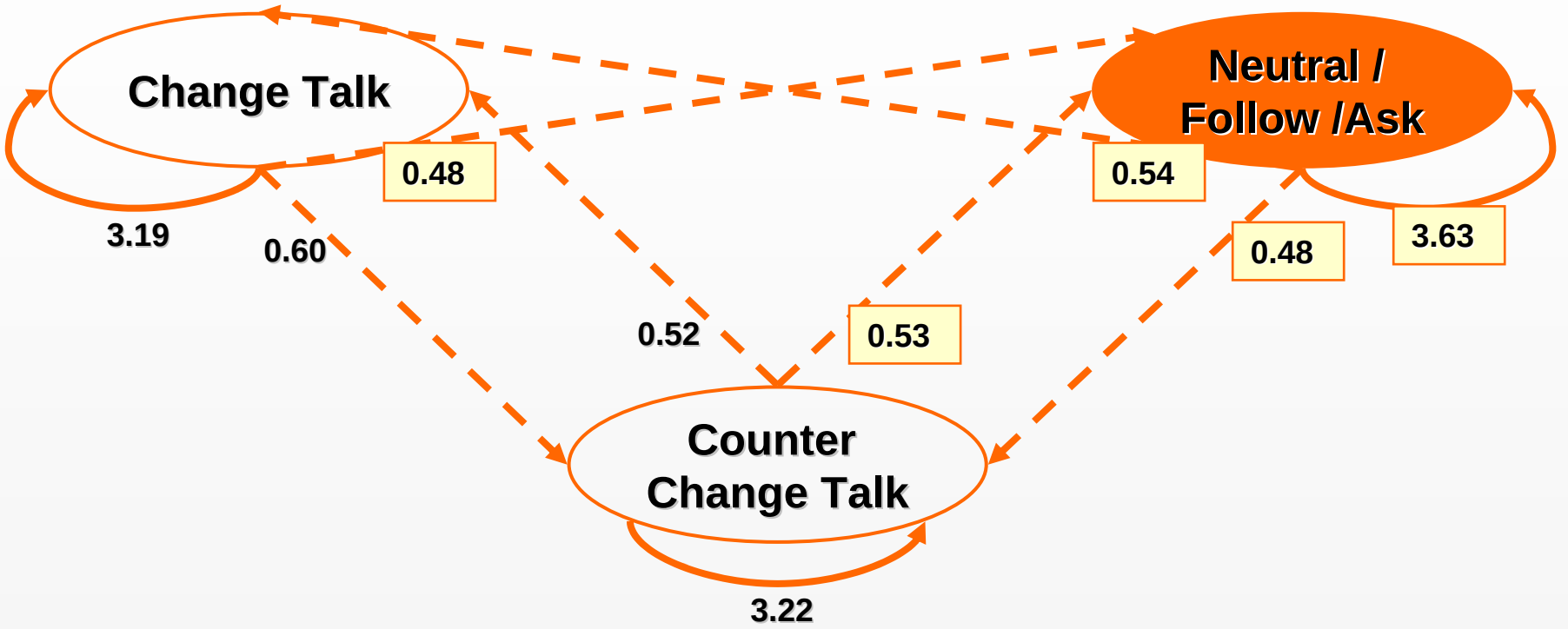

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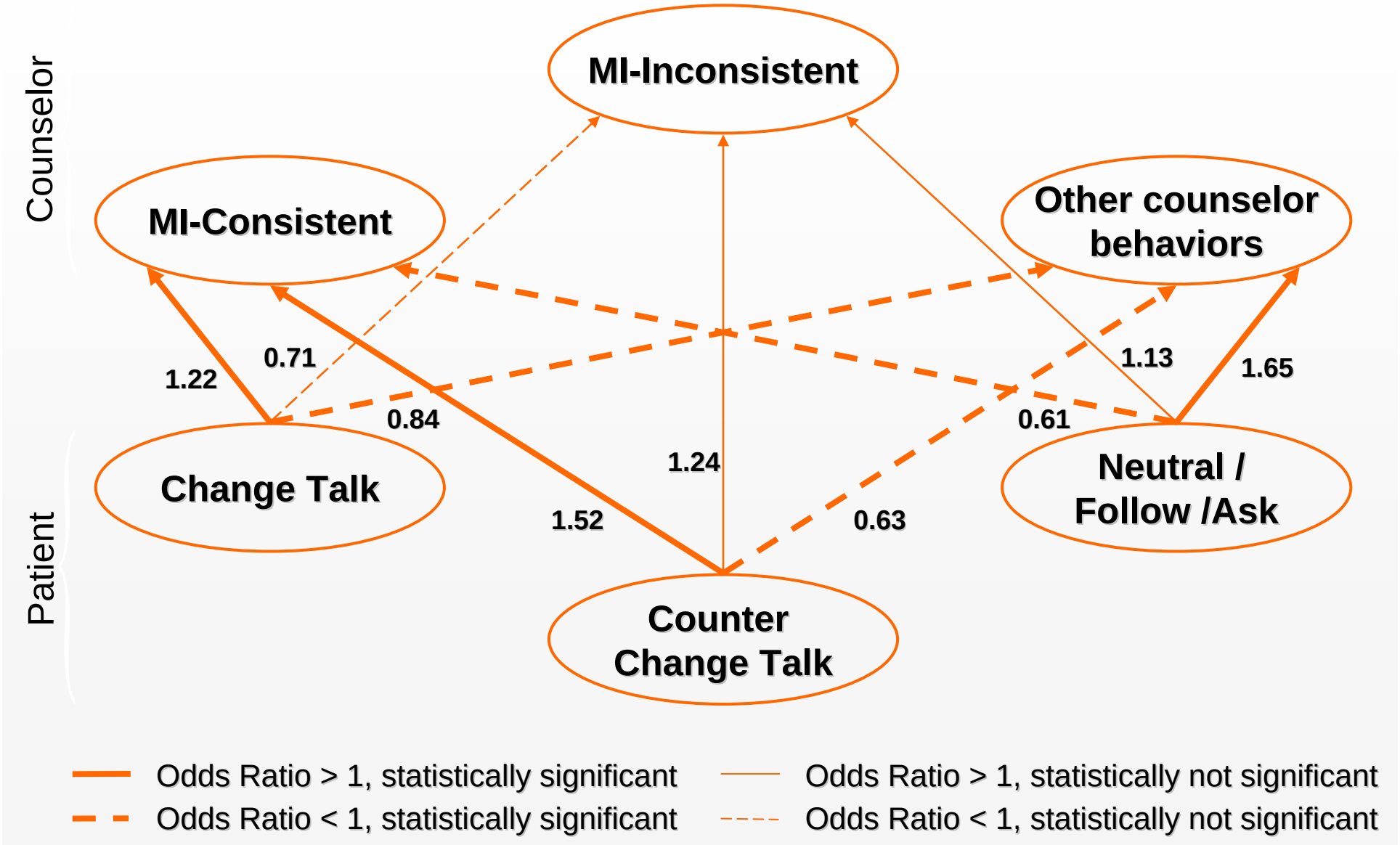

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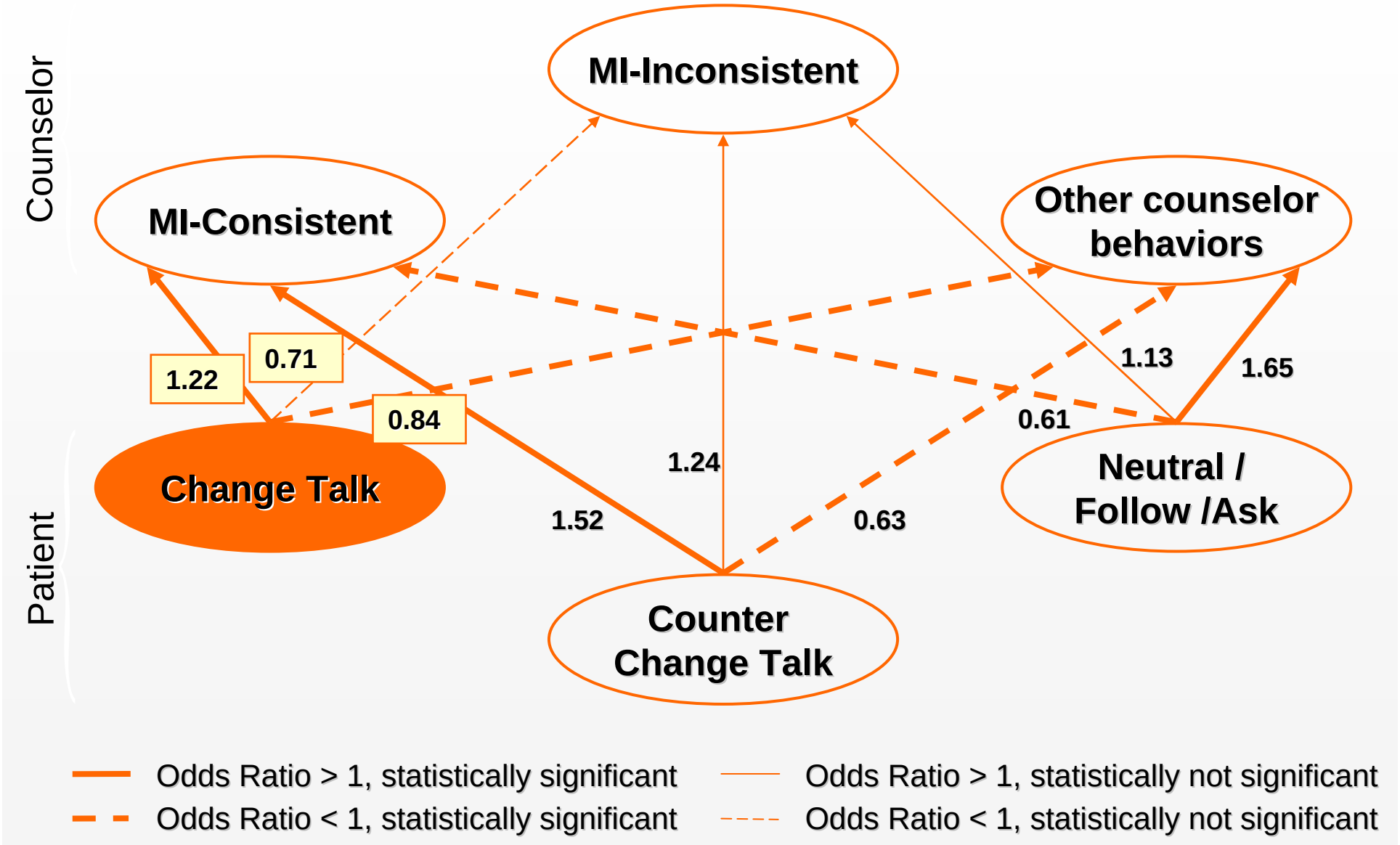

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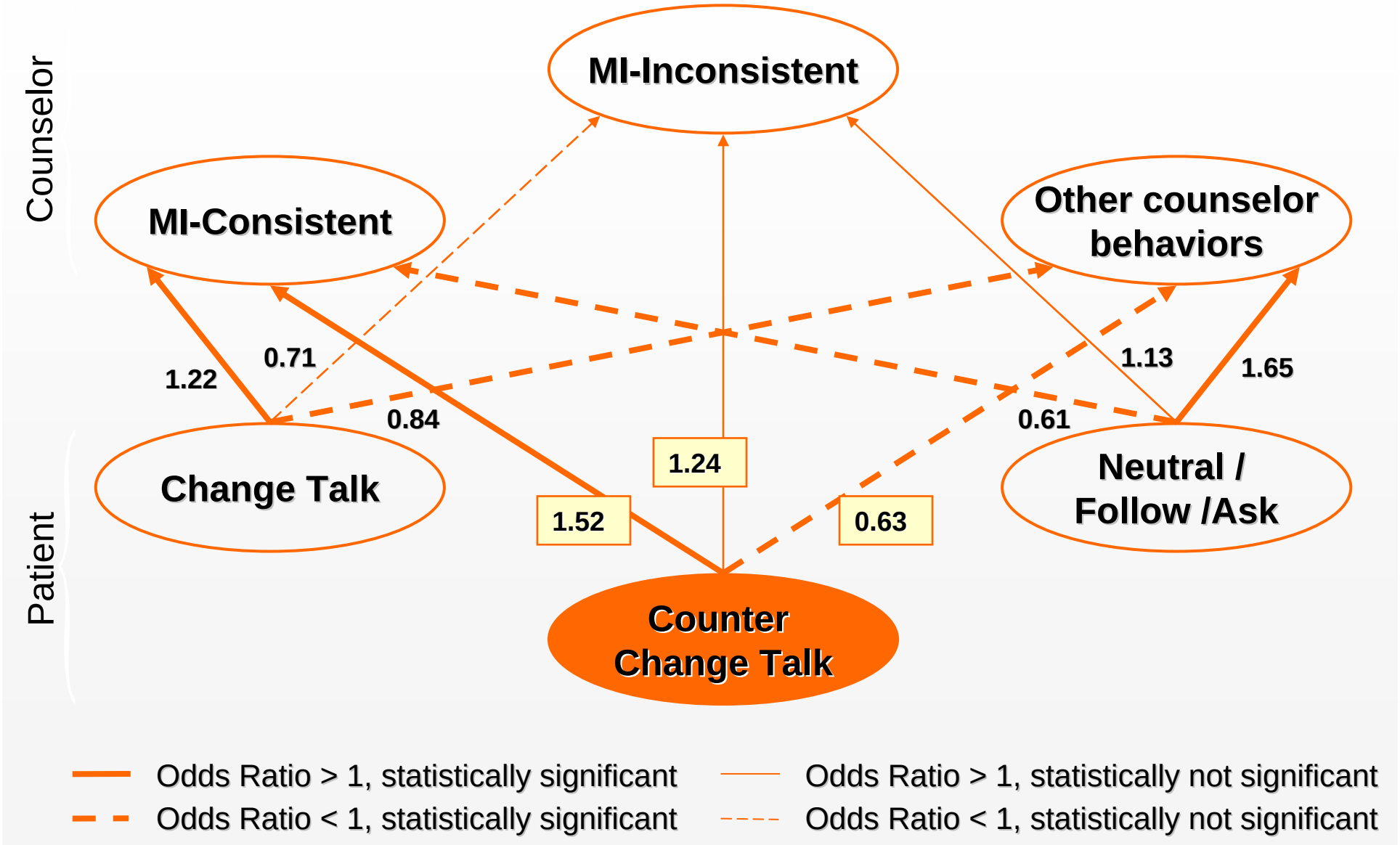

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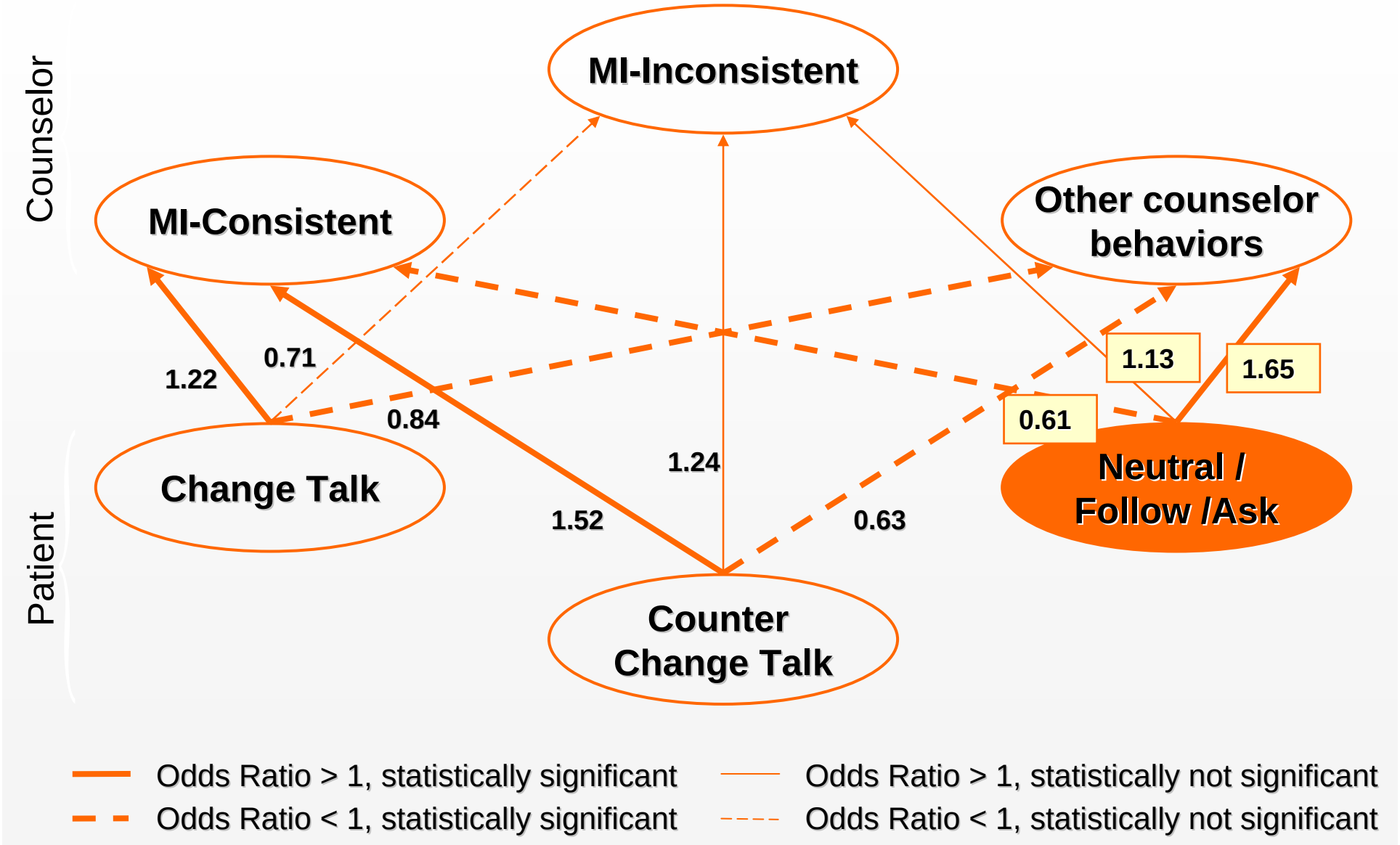

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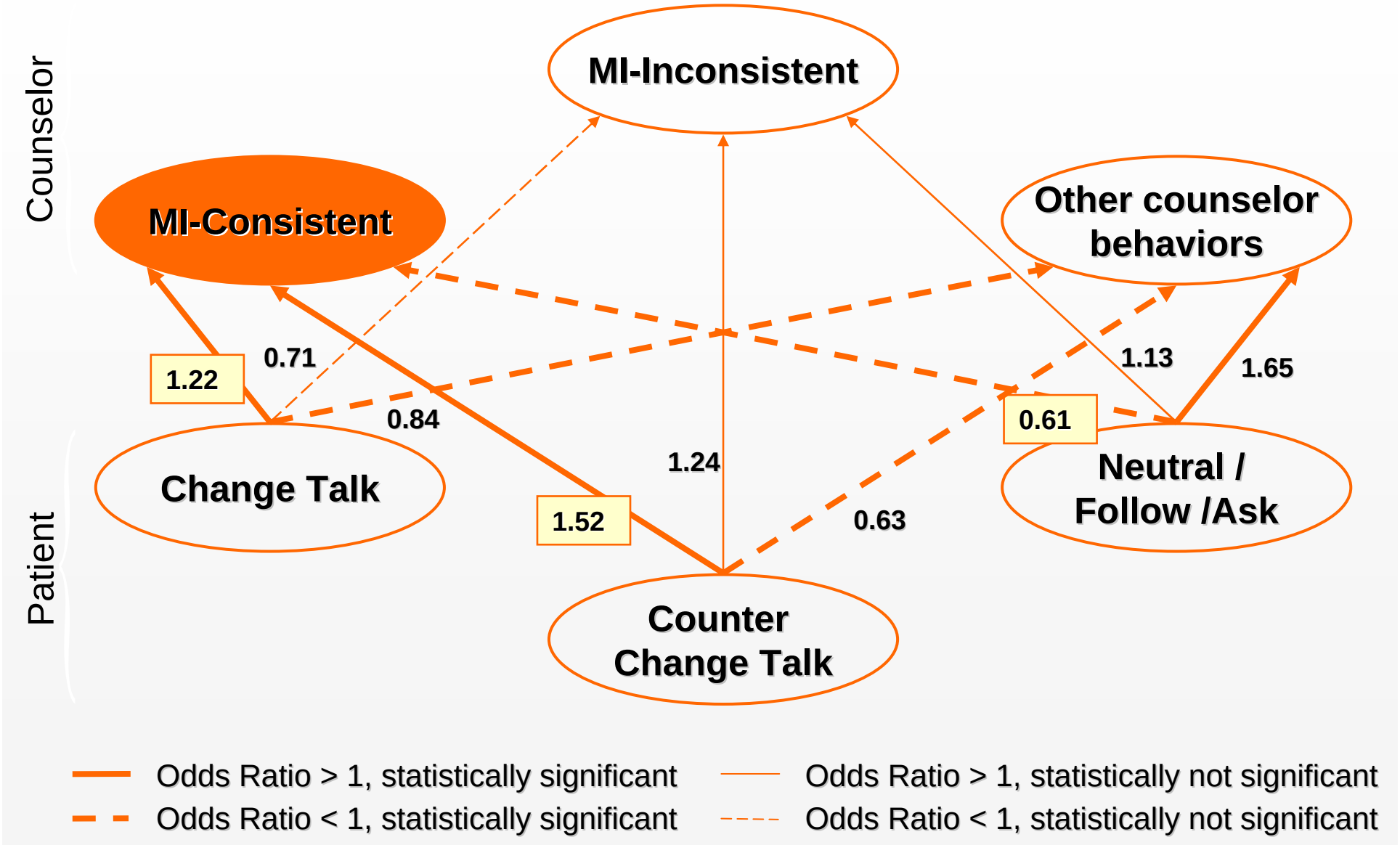

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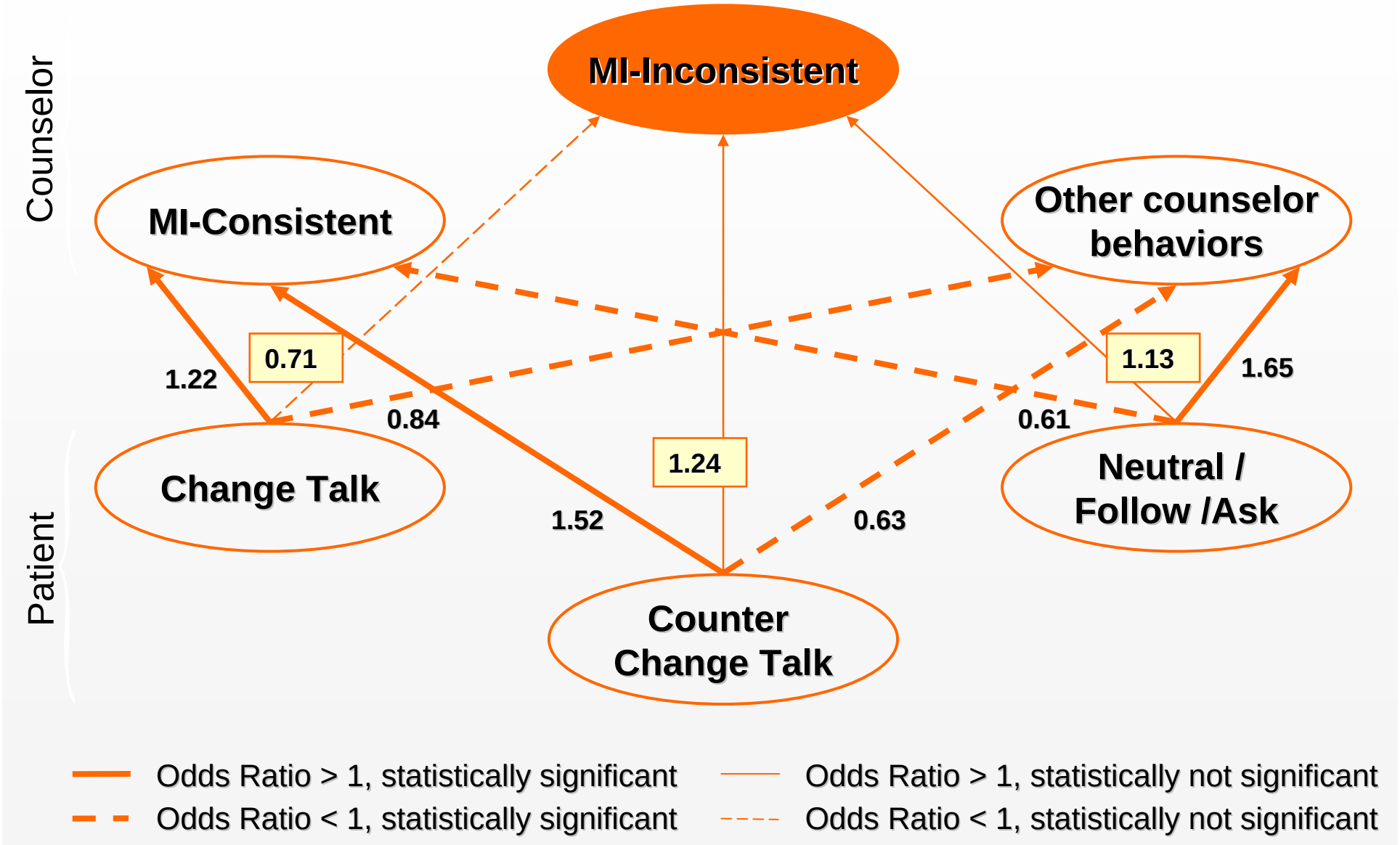
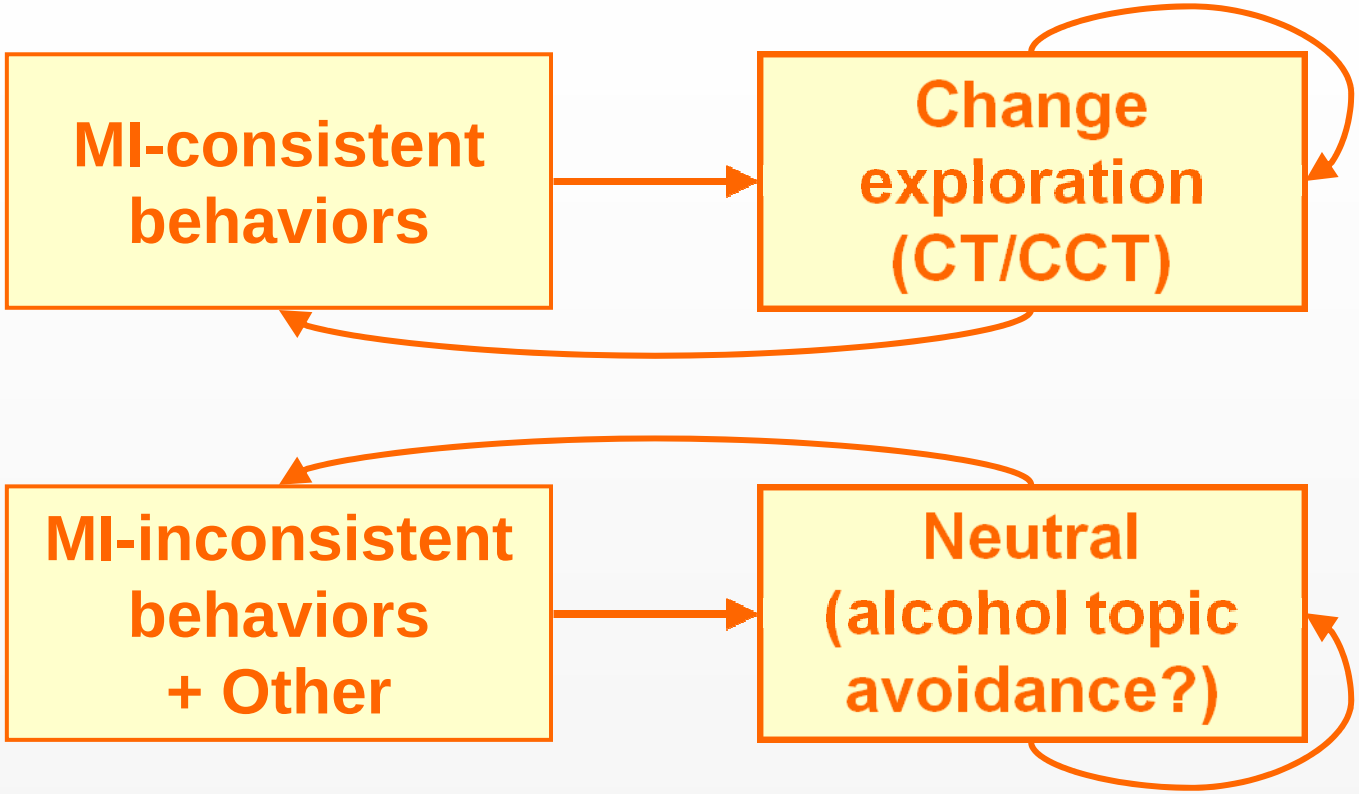


Conclusion – 2 sequential patterns



→ Self-reinforcement

→ Importance of MI-consistent behaviors to enhance CT (which is a predictor of actual change)

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ELSEVIER

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Journal of Substance Abuse Treatment

Regular article

Counselor skill influences outcomes of brief motivational interventions

Jacques Gaume, (M.A.)*, Gerhard Gmel, (Ph.D.), Mohamed Faouzi, (Ph.D.), Jean-Bernard Daeppen, (M.D.)

- to test the hypothesis that MI skills during SBI differed across counselors despite having same background and being trained identically
- to test the hypothesis that these skills differences influenced alcohol use outcomes of patients after SBI
- to analyze whether counselors were differentially effective on different levels of patient ability to change

Research on counselor influence

- Performance and effectiveness often differ between therapists
- Independent of patient background
- Not related to therapist background and formal education
- Not related to attributes of therapists (e.g. personality characteristics)
- Associated with differences in content and process of counseling, as well as possession of strong interpersonal skills

(McLellan et al., 1988; Najavits & Weiss, 1994; Luborsky et al., 1997, Project MATCH Research Group, 1998)

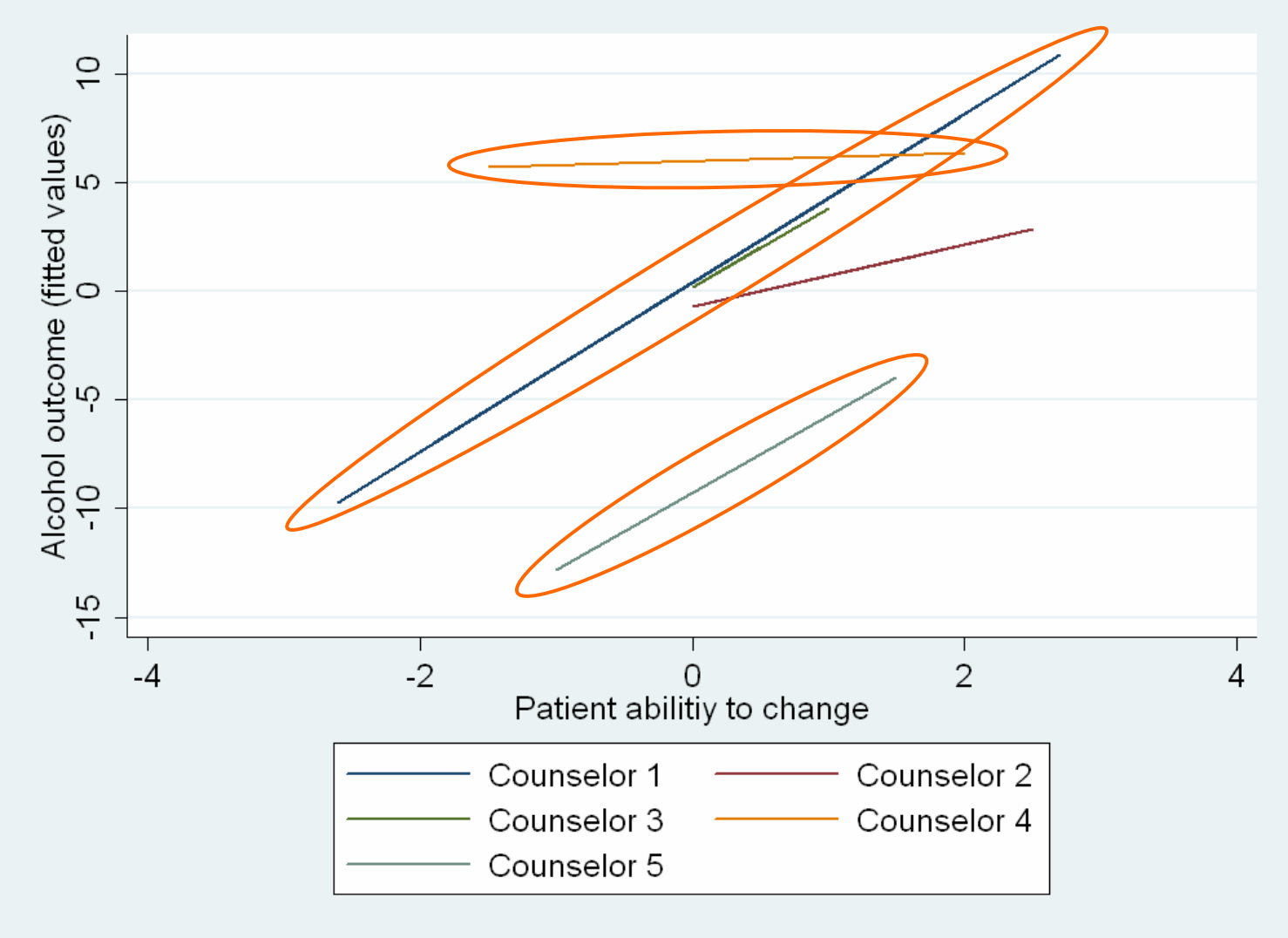
Descriptive statistics

- No differences as regard patient socio-demographic data

	Counselor					p
	1 (n=33)	2 (n=26)	3 (n=9)	4 (n=21)	5 (n=6)	
Weekly alcohol drinking amount						
At baseline	13.3	12.7	9.6	13.9	18.1	0.60
At 12-month follow-up	10.8	11.8	8.2	**7.0**	**31.5**	**< 0.01**
Baseline to 12-month difference	2.4	0.9	1.4	**6.9**	**-13.4**	**< 0.01**
MISC scores						
Acceptance	6.0	5.6	5.6	**6.5**	**4.8**	**< 0.01**
Empathy	5.9	5.1	**4.7**	**6.0**	4.8	**< 0.01**
MI Spirit	5.7	5.2	5.1	**6.0**	**4.3**	**< 0.01**
Frequency MI-consistent	**38.2**	31.5	**22.6**	28.2	31.1	**< 0.01**
Frequency MI-inconsistent	0.9	1.7	1.3	**0.3**	**2.9**	**< 0.01**
Percent MI-consistent	97.9	95.0	94.7	**99.0**	**91.4**	**< 0.01**
Percent Open question	**62.1**	**41.4**	58.0	49.6	54.9	**< 0.01**
Percent Complex reflection	46.3	46.6	40.2	**53.4**	**24.8**	**< 0.01**
Reflection/Question ratio	1.1	0.8	0.9	**1.6**	**0.7**	**< 0.01**

Pearson's Chi-squared test for categorical variables and ANOVA for continuous variables.

Link between patients' perceived ability to change during SBI and alcohol outcome according to clustering of patients within the 5 counselors



Multilevel models

→ estimate the effect of counselor skills on the link between patient ability to change during SBI and alcohol outcome according to clustering within counselors

Acceptance	Significant, in the expected direction
Empathy	Did not reach significance ($p<0.1$), but in the expected direction
MI Spirit	Significant, in the expected direction
MI-consistent behaviors	Not significant
MI-inconsistent behaviors	Significant, in the expected direction
% MI-Consistent	Significant, in the expected direction
% Open question	Not significant
% Complex reflection	Significant, in the expected direction
Reflection/Question ratio	Significant, in the expected direction

Conclusion

- Same counselors background and training
- Similar patients alcohol use and socio-demographic data at baseline
- Outcomes differed widely across counselors
- Use of MI skills during SBI differed widely
- Differences in the expected direction
  - MI-consistent skills being related to better alcohol outcomes
  - even more so, use of MI-inconsistent skills related to poorer outcomes

Symposium overview

- Main results, *JB Daeppen*
- Communication During Brief Intervention,Intention to Change, and Outcome, *JB Daeppen*
- Do counselors' and patients' characteristics communication predict change? *J Gaume*
- Counselor behaviors and patient language during brief motivational interventions: a sequential analysis of speech, *J Gaume*
- Counselor skill influences outcomes of brief motivational interventions, *J Gaume*
- **Change talk during brief motivational intervention: towards or away from drinking, *N Bertholet***
- So, what does all this tell us? *JB Daeppen*

CHANGE TALK DURING BRIEF MOTIVATIONAL INTERVENTION: TOWARDS OR AWAY FROM DRINKING

Nicolas Bertholet
Mohamed Faouzi
Gerhard Gmel
Jacques Gaume
Jean-Bernard Daeppen

Introduction

- Change talk is likely to evolve over the course of a session
- How change talk relates to subsequent behavior change is not well known
- It is of interest to
  - Describe the progression of change talk throughout a single BMI
  - Investigate whether change talk trajectories within the intervention are associated with drinking outcomes

Change talk - MISC data

- In the present study we used change talk data obtained from subject speech
- Change talk can be divided in talk:
  - In favor of change (CT)
  - Away from change / in favor of status quo (or Counter Change Talk: CCT)
- Each CT and CCT subject utterance is graded according to its strength from 1 to 5
- The direction of change talk is indicated with a positive or a negative score

Methods: Coding of audio-recordings

- The coding process was done by a trained psychologist blinded to assessment and follow-up data
- A sequence of observations consists of a series of values from –5 to –1 and +1 to + 5
- Here is how a sequence of observations looks like:

<…, +1, +1, +2, +1, +2, +2, -2, -2, -1, +3, -1, +4, -2, ...>

Methods - Hidden Markov Model

- Hidden Markov Models (HMM) provide a framework to learn about the attitudes of subjects regarding behavior change from observed speech utterances
- The HMM allow to identify states that are not directly observable: it will allow to identify underlying attitudes regarding behavior change based on CT and CCT utterances.
- The HMM will summarize a sequence of observations in a variable number of states or attitudes regarding changing drinking.

Methods - Hidden Markov Model

- Using a sequence of observations (CT and CCT utterances), the Hidden Markov Model (HMM) allows to identify underlying attitudes regarding behavior change
- Both frequency and strength of the multiple CT and CCT utterances are taken into account
- Among 97 at-risk drinkers, HMM were used to identify 3 different patient talk states reflecting their attitudes regarding changing their drinking behavior within a brief motivational intervention

Methods

- The Hidden Markov Model (HMM) was used to identify 3 different “hidden” states:
  - Attitude:
    - Towards change (TC)
    - Away from change (AC)
    - Non-determined (ND)

Methods

- Regression models were used to assess the relationship between patient attitudes (HMM states) regarding drinking at the beginning, at the end and throughout the intervention and drinking 12 months later

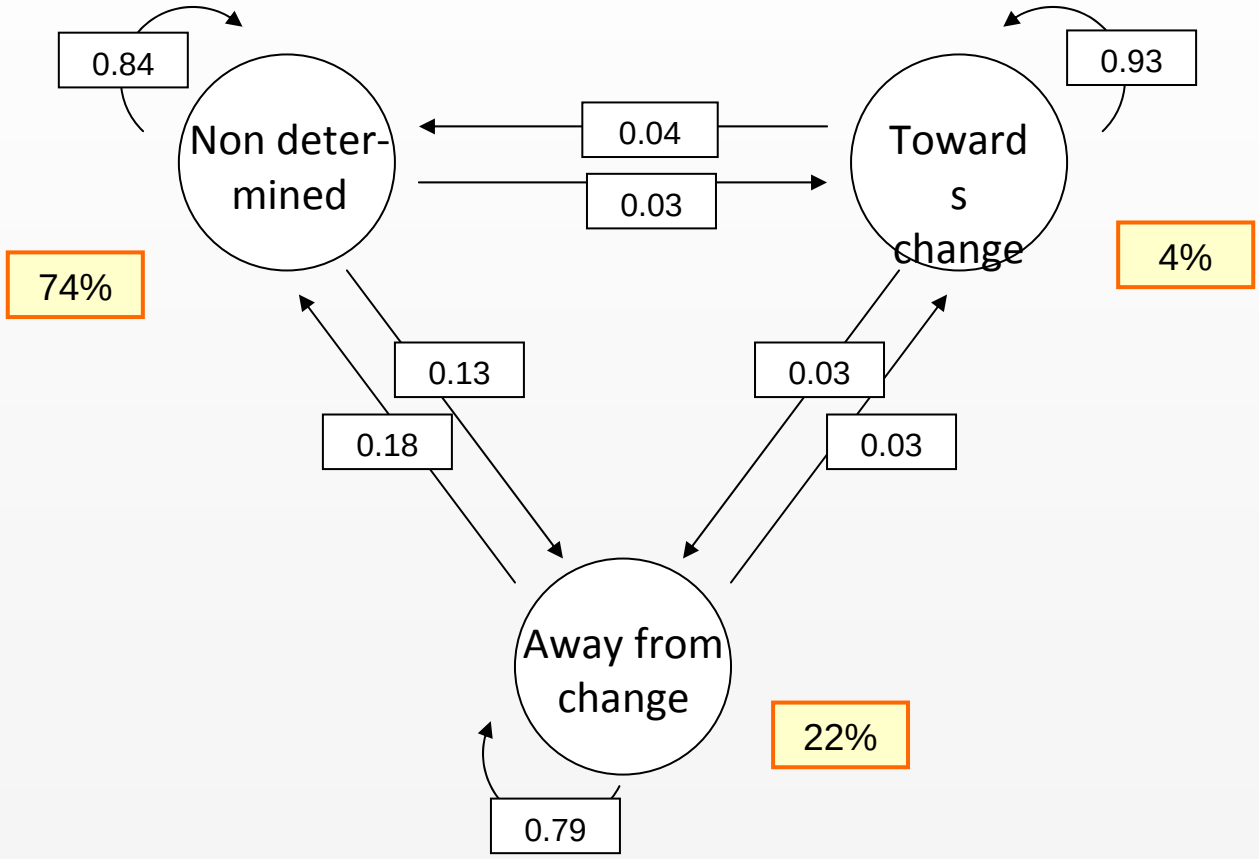
Methods

- We tested the following variables:
  - First state (attitude regarding changing drinking at the beginning of the intervention)
  - Percentage of “towards change” “away from change” and “non-determined” throughout the intervention (distribution of the speech content between the three attitudes)
  - Last state (attitude regarding changing drinking at the end of the intervention)
  - Interaction between last state and length of the last state

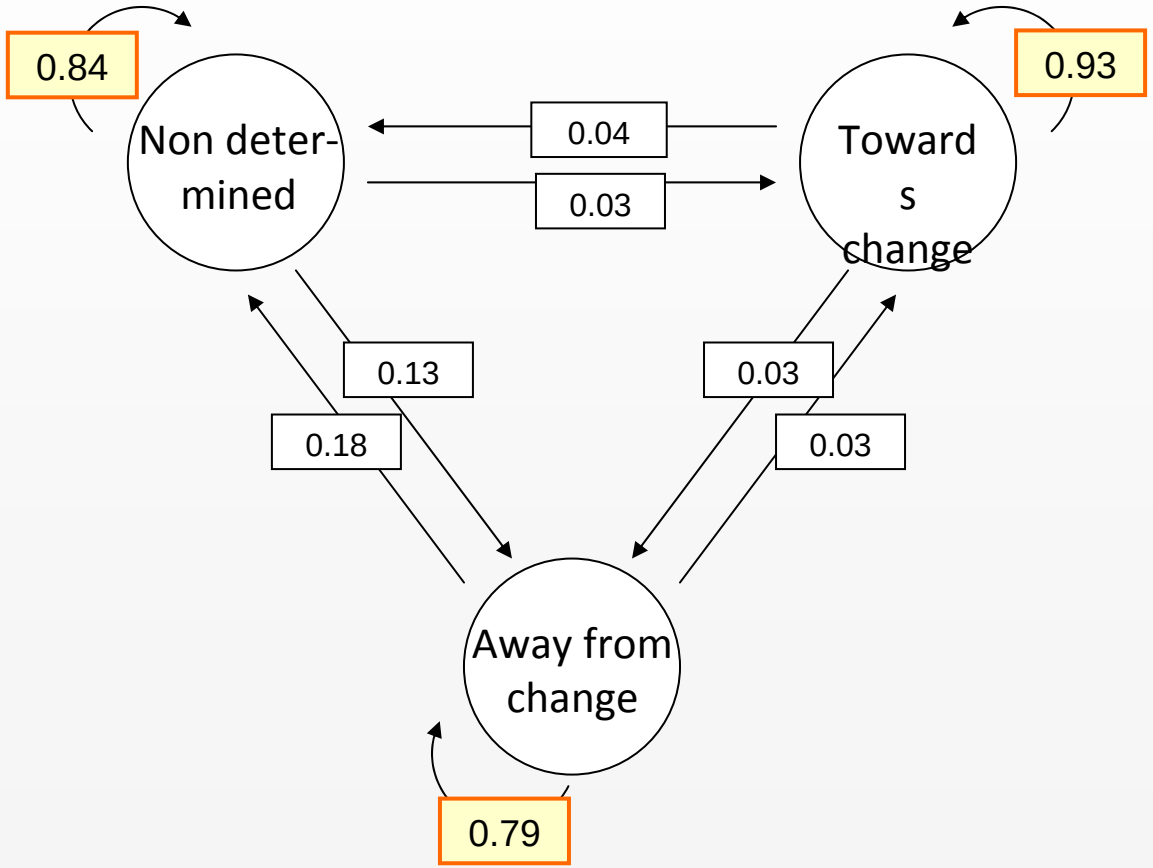
Results

- At the beginning of the intervention (first state)
  - 74% were non-determined regarding changing drinking
  - 22% had an attitude away from change
  - 4% had an attitude towards change
- At each point during the intervention, staying in the same state was far more likely than transitioning from one state to another.

Hidden Markov Model and transition matrix

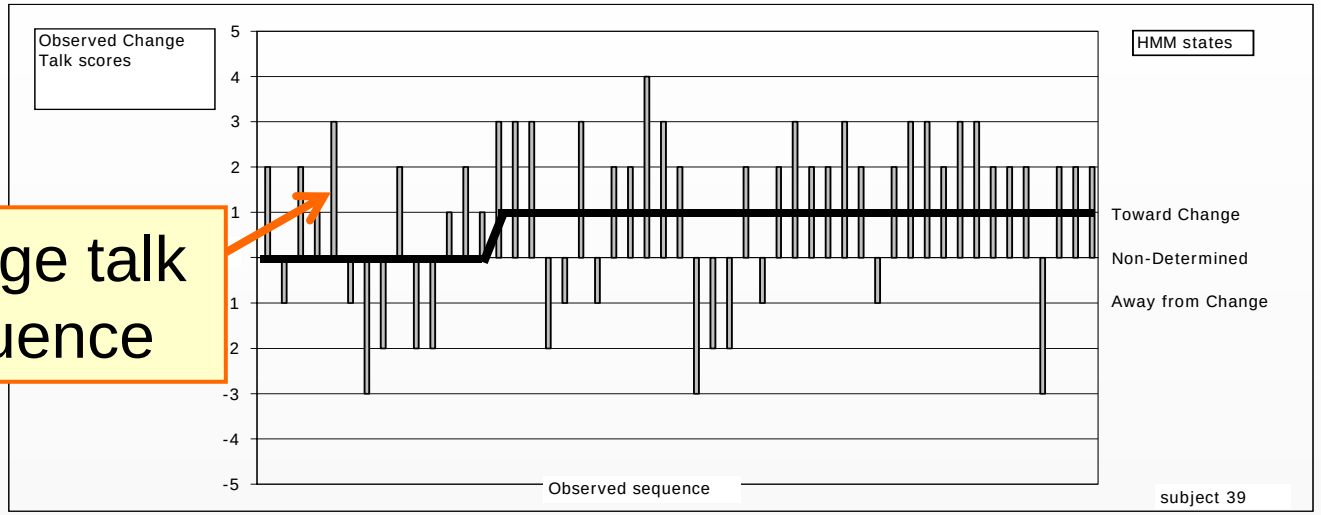


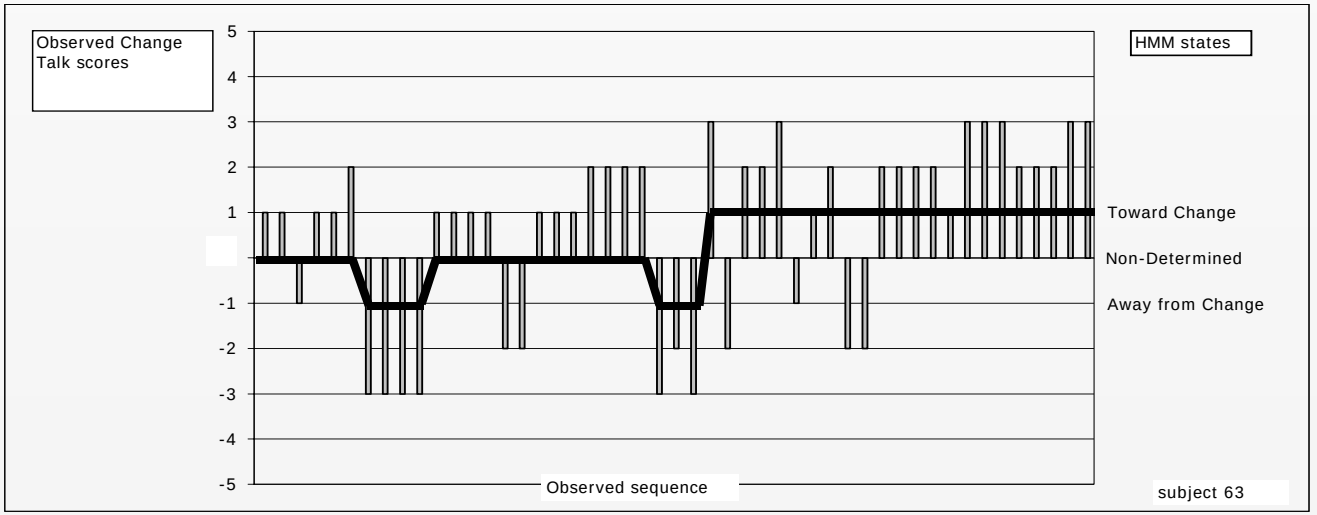
Hidden Markov Model and transition matrix



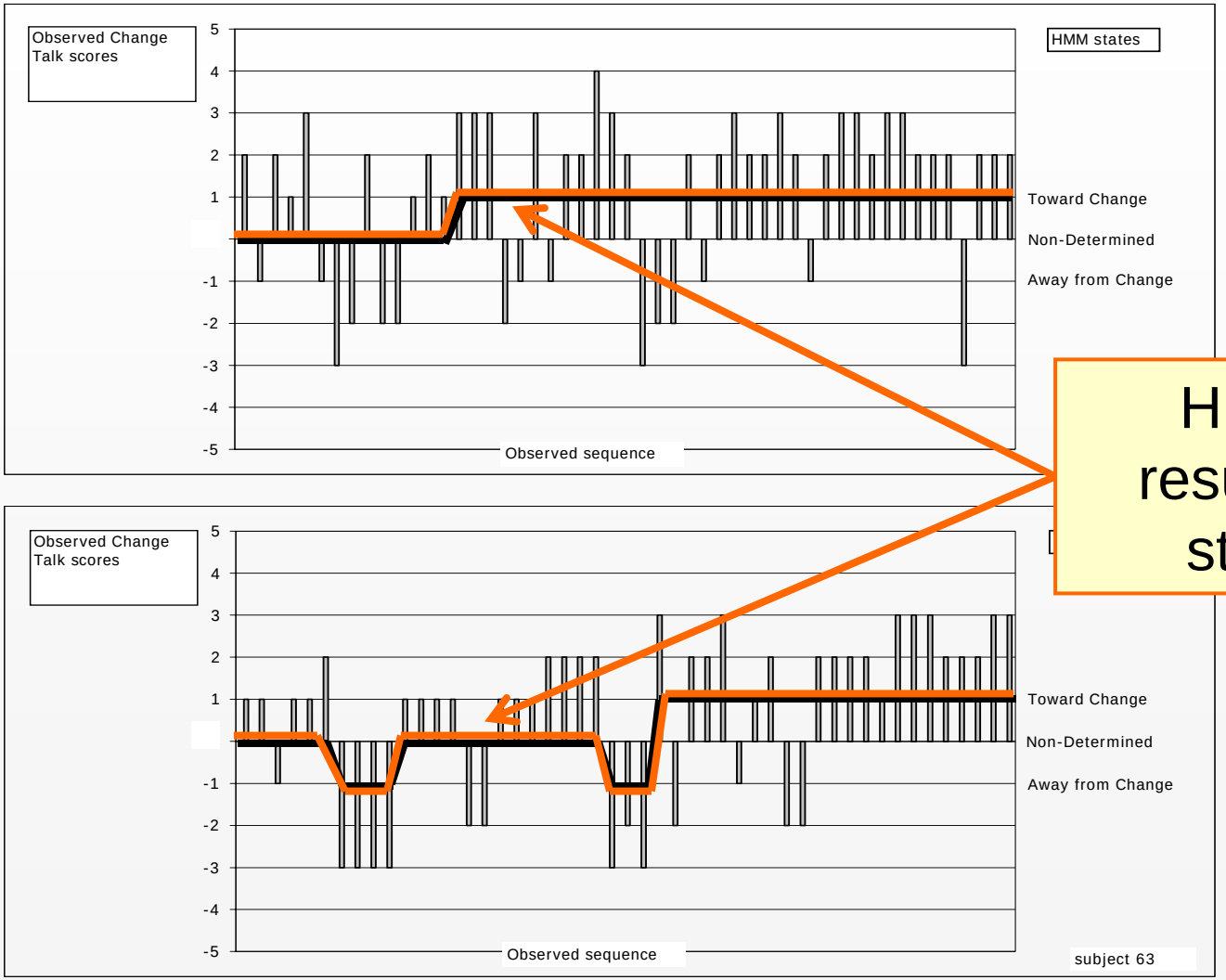
Examples of decoded sequences and corresponding states identified with the Hidden Markov Model

Change talk sequence





Examples of decoded sequences and corresponding states identified with the Hidden Markov Model



HMM resulting state

Results

- In single regression models, only the subject's attitude regarding changing drinking at the end of the BMI (last state) was significantly associated with changes in weekly drinking at 12 months (p=0.02)
- The first state was not associated with changes in weekly drinking at 12 months
- There was no interaction between type and length of last state (p=0.2)

Results

- Subjects with a last state “towards change” decreased their weekly drinking (SE) by 9.38 (2.94) more units than did subjects with a last state “away from change”
- Those with a last state “non-determined” decreased their weekly drinking by 6.66 (2.76) more units than did subjects with a last state “away from change”

Results

- In the adjusted regression model, only the first state was significantly associated with subsequent drinking.

	Coef.	SE	p
First state (reference group=AC state)			
ND state	-0.2	2.4	0.9
TC state	-5.2	7.4	0.4
Last state (reference group=AC state)			
ND state	8.9	3.0	**0.005**
TC state	16.6	4.5	**0.001**
Percentage in the decoded state sequence of AC state	9.1	5.7	0.1
Percentage in the decoded state sequence of TC state	-7.3	6.3	0.2

- Adjusted for age,
- Interaction between length of last state and last state p=0.8 (removed from the model)

Limitations

- Secondary analysis: data were collected without the objectives of this study in mind
- Only one person did the coding
- Due to several technical problems and the unwillingness of some patients to allow taping, all BI were not recorded
- The observed associations may be independent of the BMI

Conclusion

- This study contributes to current evidence that supports the notion of change talk playing an important role in the change process and adds information about the dynamic processes at play during the intervention

Conclusion

- The association between the last talk state reflecting the subject's attitude regarding changing drinking and actual changes in drinking should prompt clinicians to encourage more talk toward change

So, what does all this tell us?

Brief alcohol intervention and alcohol assessment do not influence alcohol use in injured patients treated in the emergency department: a randomized controlled clinical trial

Daeppen JB et al, Addiction, 102, 1224–1233, 2007

- No BMI effect on alcohol outcome
- The reduction of alcohol use observed in control groups was not explained by an assessment effect

Communication During Brief Intervention, Intention to Change, and Outcome

Daeppen JB et al, Substance Abuse, 28, 43-51, 2007

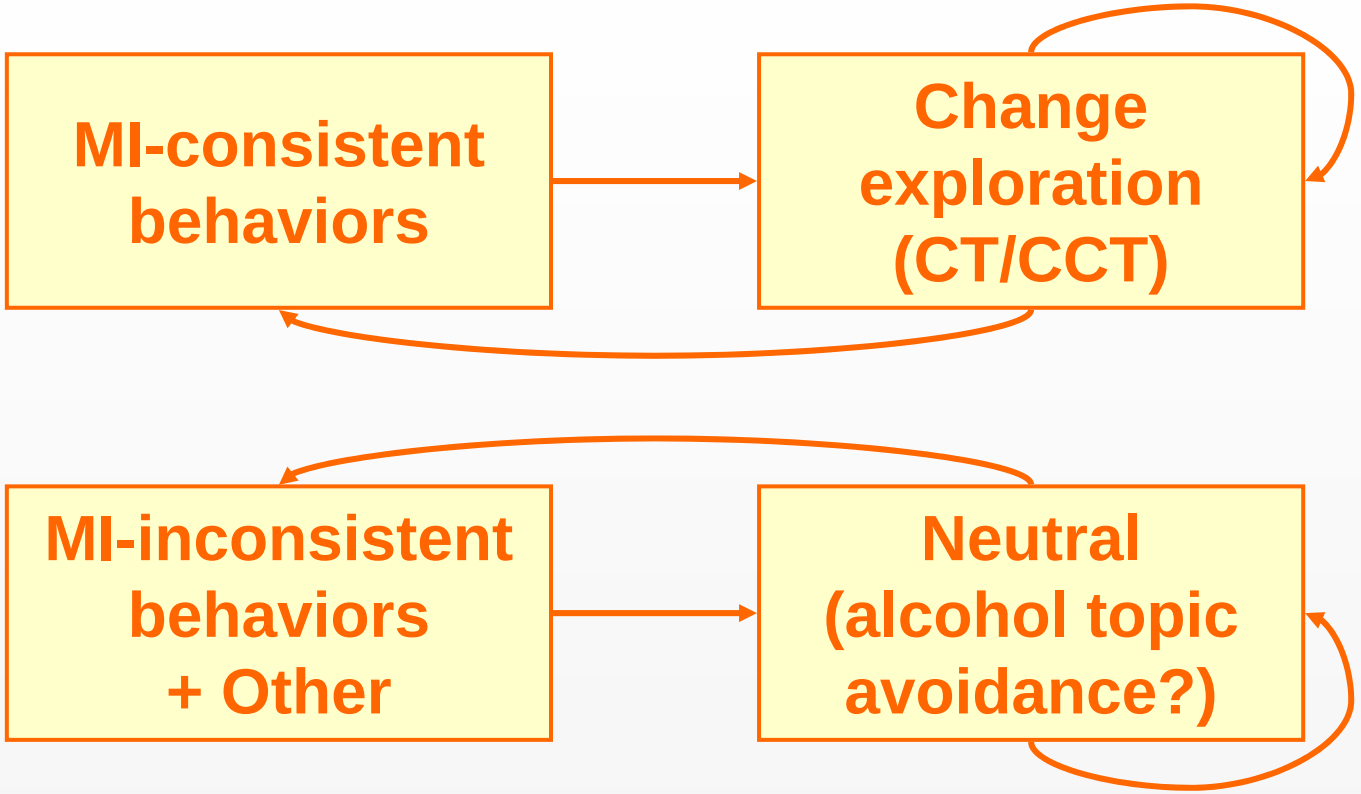
- Global null findings
- But intention to change expressed by the patient at the end of BMI was related to alcohol use outcome
- Therefore “some” patients' characteristics, influenced or not by BMI, are related to drinking outcome
- May be independent of counselor attitude
- May be independent of BMI effect

Brief Alcohol Interventions: Do counselors' and patients' characteristics communication predict change?

Gaume J et al, Alcohol & Alcoholism 43, 1, 62–69, 2008

- Global null findings
- But, content of BMI related to alcohol outcome, particularly ability to change expressed by the patient
- May be independent of counselor attitude
- May be independent of BMI influence

Sequential patterns



→ Self-reinforcement

→ Importance of MI-consistent behaviors to enhance CT (which is a predictor of actual change)

Counselor behaviors and patient language during brief motivational interventions: a sequential analysis of speech

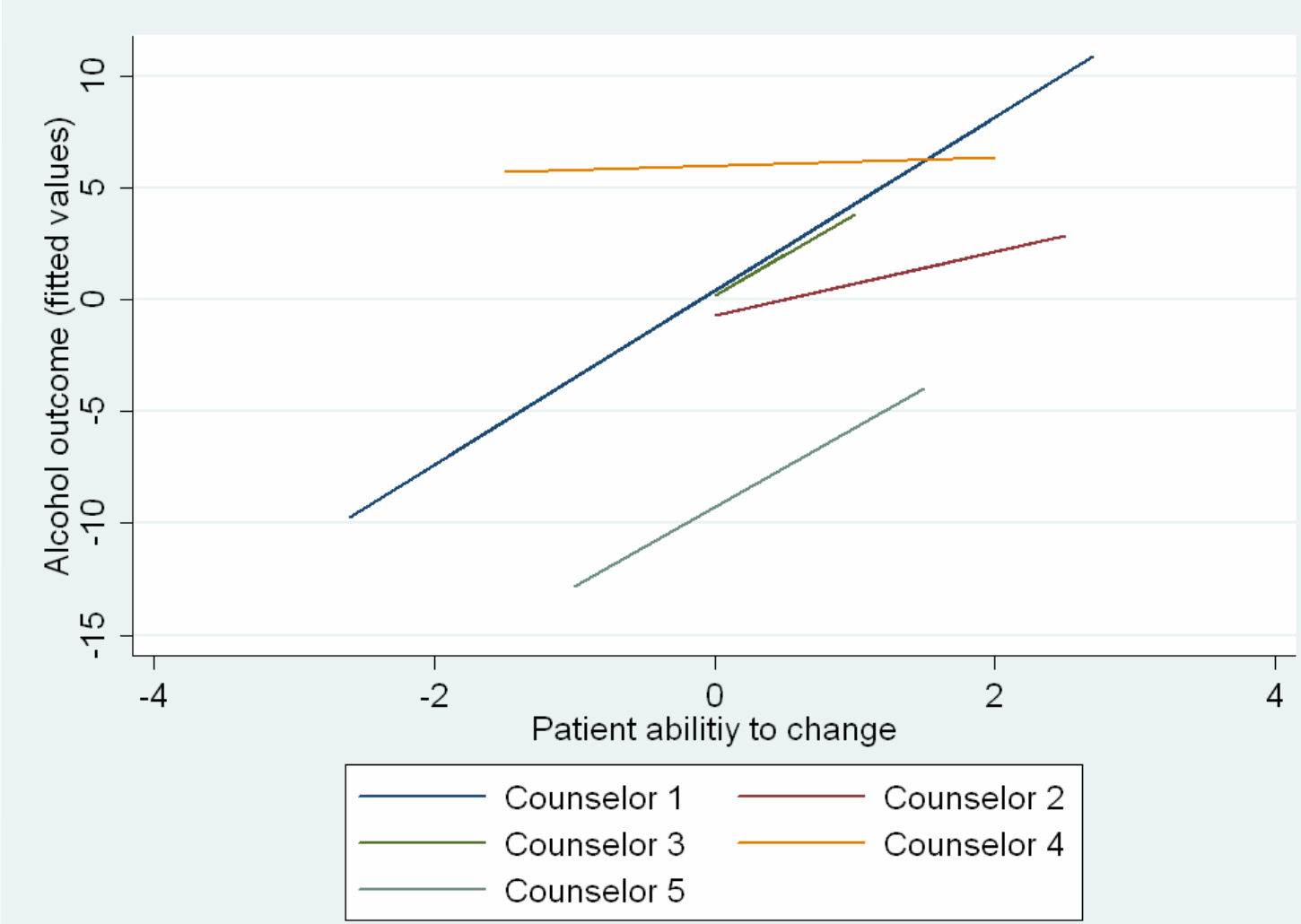
Gaume J et al, Addiction 103, 1793–1800, 2008

- MI-consistent behaviors were the only counselor behaviors that significantly lead to patient change talk
- Other counselor behaviors significantly led to neutral speech (avoidance of alcohol topic?)
- MI consistent counselor behavior likely to be followed by patient change talk and self-reinforcing sequential patterns
- MI useful to elicit change exploration and change talk

- These patient-provider interaction analyses suggest
  - Influence of the counselor on patient attitude
  - Influence of patient talk on outcome
- Is there an influence of counselor on outcome, via patient?

→ **Hypothesis of the potential influence of the counselor on outcome suggested a next step of analyses comparing outcome across the 5 counselors who participated to the study**

Link between patients' perceived ability to change during BMI and alcohol outcome according to clustering of patients within the 5 counselors



Differences related to MI adherence in multi-level analyses

Counselor skill influences outcomes of brief motivational interventions

Gaume J et al, Journal of Substance Abuse Treatment 37, 151-159, 2009

- Counsellors with a better overall MI performance achieve better outcomes
- but also showed efficacy across all levels of patients' ability to change
- Counsellors with a poorer overall MI performance were efficacious mainly with patients expressing high levels of ability to change (reinforcement only?)

- Influence of patient on outcome
- Influence of counselor on outcome
- Counselor influence related to MI adherence
- Influence of counselor-patient interaction
- Good counselor effective whatever the patient's ability (readiness) to change
- Impact on selection of counselors?

Change talk during brief motivational intervention: towards or away from drinking

Bertholet N et al, submitted

- The finding that the last state (toward change, away change or neutral) and not the initial state was associated with changes in weekly drinking 12 months after BMI
- The finding is consistent with the hypothesis that something might occur within the patient during the course of the intervention.
- Furthermore, we identified a significant association between the last state and subsequent drinking that was independent of the first state.

Conclusions

- Independent of homogenous and careful training, important differences were observed across counselors' performances
- MI-consistent counselors induced change talk in patients; and change talk was positively associated with drinking outcome
- BMI should focus on the general MI attitude of counselors who are capable of eliciting beneficial change talk from patients, and not place as much importance on some of the other, less influential components of the intervention such as feedback or menu.

Conclusions

- This probably means that counselor training, initially considered to be relatively short and easy to achieve within a FRAMES-like brief intervention, may take more time and practice in order to equip providers with the requisite skills to help patients elicit more change talk.
- These findings also put the overall null findings of our study into a more meaningful context, since most counselors were effective only with patients having high levels of ability to change, and patient ability to change was generally low among the individuals studied

Thank you for your attention!

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