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The Development of a Video Task of Remedial Behaviour to Use in Communication Training of Health Professionals with Specific Reference to Open Disclosure Practice

Research Report

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Table of Contents

Executive Summary	iv
Introduction	1
Method	5
Video Simulation Development	
Video Simulation Testing	
Data Analysis and Results	6
Sample Characteristics	
Descriptive Data	
Analysis by Open Disclosure Scenarios	
Conclusions	14
Recommendations	16
References	18
Appendices	21
A Rationale for Open Disclosure Scenarios	
B Research Questionnaire	
Enclosure	
Research DVD	

Executive Summary

The National Open Disclosure Standard requires health professionals (hereafter professionals) to disclose errors in the course of their practice. There is, however, evidence that some professionals are reluctant to do so because they are uncertain about how to engage in open disclosure communications in general and, specifically, how to do it in a legally appropriate manner. One way of addressing this problem is to train professionals in disclosing errors to patients and their families in ways that meet their psychological needs as well as the legal requirements. Although preferable, the comprehensive training of all professionals in appropriate open disclosure practices is unlikely given the time and cost associated with these activities. Given the large number of professionals in Western Australia and the geographical vastness of the State an effective way of doing this would be by using video simulation training that can be made available on a digital video disc (DVD), as well as on the Internet in a format which can be downloaded onto any portable device (e.g., laptop, iPad, mobile phone). It is critical that the material used for such training should meet best practice standards and this requires that all material should be evidence-based as well as grounded on a solid theory that has demonstrated psychological authenticity. No theory of remedial communication in open disclosure exists, but a theory has a significant overlap is the multidimensional theory of apology developed by Slocum, Allan and Allan (in press). This theory was therefore used in the study described in this report of which the aim was to develop of a trial video simulation that could be used to collect the preliminary data necessary for an evidence-based training program in open disclosure communication through the use of a video simulation technique. This was done in two stages:

- (1) developing video footage depicting different forms of remedial communication based on Slocum and colleagues' (in press) multidimensional theory of apology; and
- (2) inviting a cross section of members of the public to view the different video clips and give feedback on their perceptions by responding to a questionnaire.

In the first stage of the study, video simulations were developed in which the elements of the theory were systematically varied. The five resulting open disclosure scenarios ranged from the most basic type of remedial communication defined by the theory to the most comprehensive.

In the second stage of the study 251 members of the general public of Western Australia were invited to view the different versions of the video simulation scenarios and requested to respond from the position of the patient. Valid data were collected from 101 males and 144 females. The mean age of respondents was 48.55 years.

The results of this study provided support for the use of video simulation based on Slocum and colleagues' (in press) multidimensional theory of apology as a theoretical foundation for training in open disclosure. Important findings included indications that:

- A patient's age can be a factor in the acceptability of remedial communications.
- Open disclosure that includes any type of remedial communication can be sufficient to promote a positive perception of the professional and of his or her sincerity.
- Reparative intentions for redress and reform, rather than compensatory actions, alone, are important to the repair of professional relationships after an adverse incident.

The recommendations arising from the study are that:

1. Slocum et al.'s multidimensional theory of apology (in press) proved to be an appropriate basis the development and testing of the video task of remedial behaviour. The theory and the task are recommended for use in future investigations and in training in health communications.
2. Future investigations of patient responses to remedial communications should take into account a normative tendency for people, including patients, to respond favourably to any kind of disclosure, whether or not it meets their needs.
3. The influence of the age group of the recipients of the remedial communication on their responses to that communication warrants further investigation.
4. The importance of reparative intentions in remedial behaviour was highlighted by the results of this study. Addressing patients' needs for redress, system review and reform should be considered an important aspect of open disclosure communications.

Development of a Video Task of Remedial Behaviour to Use in Communication Training of Health Professionals with Specific Reference to Open Disclosure

The National Open Disclosure Standard (Australian Commission for Safety and Quality in Health Care [ACSQHC], 2003b; 2008) requires health care professionals (hereafter professionals) to provide patients with accurate information about adverse events and the immediate consequences thereof, and about options to remedy the harm suffered by patients.

The patients and their families must also be provided with an expression of regret, a succinct summary of actions that will be taken to avoid future occurrences of similar incidents and ongoing support. Open disclosure practice is therefore a form of remedial behaviour, that is, in generic terms, an attempt to explain a harmful incident so that it becomes acceptable and leads to a restoration of the relationship between the wrongdoer and wronged person (Allan, 2006).

The construct of open communication that underpins open disclosure is well established in professional health practice and is seen to be advantageous to patients, professionals and the profession at large (Allan & Munro, 2008). However, despite the undeniable advantages of open disclosure, the strong research support for its benefits and evidence that many professionals are well disposed towards it (e.g., Duclos et al., 2005; Iedema et al., 2008; Levin, Robertson, & Hébert, 2001; Liang, 2002; Mazor et al., 2004), there is Australian evidence that some professionals are not comfortable engaging in the process (Iedema et al., 2008). There is also international evidence that, although medical professionals support the idea of open disclosure, they do not always disclose medical errors (e.g., Fein et al., 2007; Mazor, Simon, & Gurwitz, 2004) and they are often selective about the information they do disclose (e.g., Gallagher et al., 2006; Kaldjian et al., 2007).

One reason for professionals' discomfort with open disclosure appears to be uncertainty regarding how to engage in an open disclosure process (Williams, 2008). A specific issue in this regard is practitioners' fear that what they tell patients and their families may be construed as an admission of legal responsibility and that this may have negative legal consequences (Iedema et al., 2008). There have consequently been numerous recommendations for training professionals in effective open disclosure communication (e.g., Hébert, 2001; Peto, Tenerowicz,

Benjamin, Morsi, & Burger, 2009; Williams, 2008). In the State of Western Australia (WA) the Department of Health is keen to engage in such an education process, however, the number of practitioners, the size of WA and the remote locations of some health professionals present significant barriers to site-based methods of professional development. Arguably, one of the best ways of providing this type of training in WA is therefore to develop a training package that incorporates video stimuli, such as realistic simulations of disclosure situations (e.g., Iedema, Jorm, Wakefield, Ryan, & Dunn, 2009). Utilisation of computer technology as a training medium would enable access to such training by professionals, no matter what their location.

Ideally training of any nature should meet best practice requirements and standards and the material developed should therefore be based on existing bodies of knowledge, in this case on remedial behaviour and communication. In preparation for the development of an open disclosure training package it was therefore important to find a theory of remedial behaviour that could be utilised to guide the development of the material and which also provided a framework that could be used to empirically test the effectiveness of the material.

Two important problems face the developers of an open disclosure package for use by professionals in WA. The first is the absence of a comprehensive theory of remedial behaviour from which to form the foundation. Up until recently there has not been such a theory (Allan, 2006; 2007; 2008; Slocum et al., in press). The second, related issue is the, implied at least, instruction to professionals to use expressions of regret in the course of open disclosure rather than apologies. The problem here is that there is a lack of clarity regarding the distinction between an expression of regret and an apology (Allan, 2008). The confusion around what constitutes an expression of regret as opposed to an apology is well demonstrated in the open disclosure documents. The word 'apology' is never specifically mentioned as an element of open disclosure in the Open Disclosure Standard (ACSQHC, 2003b). Additionally, a review of the open disclosure policy documents, standards and guidelines produced by the ACSQHC (e.g., 2003a) suggests that the authors of those documents do not make a clear distinction between an apology and an expression of regret (Allan, 2008). This not surprising because there is no clear definition of an apology in the literature; nor is there a clear understanding of what constitutes an effective apology in different situations (Allan, 2006, 2007,

2008). This lack of consensus regarding the difference between an apology and an expression of regret is of particular importance in WA where section 5AF of the Civil Liability Act (2002) provides that only apologies that entail “an expression of sorrow, regret or sympathy by a person that does not contain an acknowledgment of fault by that person” are privileged during later civil litigation. Being in a situation where one needs to disclose an error is emotionally difficult, and the lack of clarity around what exactly constitutes an expression of regret makes it even more difficult for WA professionals.

The legal concerns will need to be resolved by the legislature, but Slocum and colleagues' (in press) multidimensional theory of apology makes it possible to explain and describe the remedial process. This theory conceptualises the remedial process as being comprised of three primary components: affirmation, affect, and action. Affirmation is constituted by an admission that a wrong has occurred and an acknowledgment of the effect on the wronged person. The affective component includes verbal and non-verbal expressions of regret that the wrong occurred and remorse for the impact on the wronged person. The action component encompasses restitution as an attempt to make up for the wrong and reparation, including behavioural reform, to address the psychological impacts and harms. Each of these components can be visualised on a continuum where one end represents remedial behaviour that is exclusively self-focussed on the needs of the wrongdoer and, at the other end, it is self-other focussed; that is, the perspective of the person who has been wronged or who feels wronged is also considered (see Figure 1). In the context of open disclosure, the self-focussed elements for the affirmation, affect and action components, respectively, are: admission that an error has occurred, regret that the error occurred, and restitution to deal with consequences of the error. The self-other focussed elements are: acknowledgement of the physical and emotional impact of the error on the patient, an expression of remorse that the patient has suffered, and reparation to re-establish the trust in the professional relationship.

The nature and extent of the remedial response (i.e., the number of components and elements, as well as their focus) required by those who have been wronged will, according to Slocum et al. (in press), depend on the level of responsibility they ascribe to the wrongdoer, the wrongfulness of the conduct in their eyes, and the severity of the consequences of the conduct.

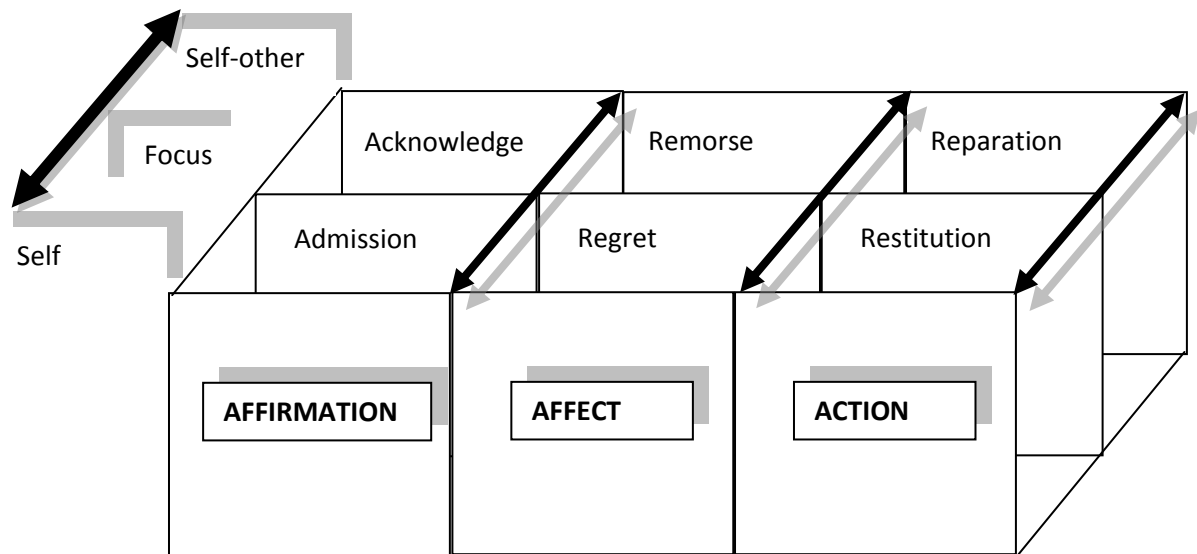


Figure 1. Multidimensional theory of apology (Slocum, Allan & Allan, in press).

Whilst the theory is primarily a theory of apology, it is currently the only theory of remedial behaviour that is available and that provides a way of understanding the remedial process. The multidimensional theory of apology (Slocum et al., in press) addresses the need for a theoretical basis for developing and testing a video task for open disclosure communications training and its structure permits clear, testable distinctions between the effectiveness of the various elements of a remedial communication. Identification of the most important elements of open disclosure communication will enhance the effectiveness of the process, in addition to informing communication training for health professionals.

The aims of the study described in this report were to develop a task of open disclosure and remedial communication and to collect the preliminary data necessary to develop an evidence-based training program in open disclosure communication through the use of a video simulation technique.

Although the development of the video simulation and the testing were two separate stages, they are so closely linked that we will collapse the two stages in this report to make it more coherent for the reader.

Method

Video Simulation Development

As a first step, a video simulation that presented simulated open disclosure communications from a surgeon to a post-operative patient was developed. The background scenario was the surgeon's disclosure that the wall of the patient's bowel was perforated during surgery¹. The situation therefore involved one where the surgeon was clearly responsible for the incident but the level of wrongfulness and the severity of consequences were low. For research purposes five versions of the scenario were developed. The text of each scenario was determined by manipulation of the elements of the multidimensional theory (Slocum et al., in press), that is, admission, regret, restitution, and acknowledgment, remorse, and reparation (please see Appendix A for details). The five permutations of the theory that guided production of the five open disclosure scenarios (see Appendix A for rationale) were:

- 1 Admission, regret, restitution formed the *Basic Apology* scenario.
- 2 Admission, regret, restitution, acknowledgement, remorse, and reparation formed the *Complete Apology* scenario.
- 3 *Basic Apology + Remorse* (admission, regret, restitution, remorse).
- 4 *Basic Apology + Remorse + Acknowledgement* (admission, regret, restitution, remorse, acknowledgement)
- 5 *Basic Apology + Remorse + Reparation* (admission, regret, restitution, remorse, reparation).

Minor alterations were subsequently made to the scenarios as a result of feedback on authenticity from a panel of three health professionals and feedback on ease of understanding from ten volunteer members of the general public.

Professional actors were employed and the video footage was filmed at the ECU Health Simulation Centre facilities. The same two professional actors were used to present the five different examples of open disclosure communication. The resulting videos were edited and voiced-over in order to integrate them with a paper

¹ This example was chosen because it was easy for the actor to explain and for participants to understand, but we concede that surgeons would probably not consider this to be an error. In contrast, lay people would probably want to receive some form of remedial behaviour from a surgeon if this happened.

questionnaire². Once this was completed, the task was saved onto a DVD to ensure that the task was portable and easy to use with any compatible equipment (e.g., computer, laptop or DVD player).

Video Stimulation Testing

A sample of 251 participants from WA was recruited and they recorded their responses to the open disclosure scenarios on a paper questionnaire (see Appendix B). Each participant was asked to respond to all five scenarios. Two versions of the task were used in order to avoid response bias due to the order in which the scenarios were viewed. One task presented the scenarios in the sequence 1 through to 5, the other in the order of 5 to 1.

The research was presented to participants as a health communication study (see Appendix B). They were instructed to imagine that they were the patient in each of the scenarios before answering questions about their perceptions of the surgeon, the sufficiency and sincerity of the apology offered, the extent to which the surgeon was sorry for the adverse event, whether they would be forgiving, and what further action (e.g., a complaint to the hospital, legal action), if any, would they take. Demographic data were collected about age, gender, details of any health system employment, details of any personal experience of having something go wrong during a surgical procedure and their satisfaction with the response from the hospital, as well as details of any health or medical mistake or error involving them, or a person close to them. All procedures in this study were approved by the ECU Human Research Ethics Committee.

Data Analysis and Results

Sample Characteristics

Of the 251 participants, four cases were deleted from the sample due to aberrant or missing responses. There were 101 males and 144 females³ in the remaining sample. Participants ranged in age from 17 to 87 years (mean age=48.55 years, $SD=24.40$ years). Twenty per cent ($N=50$) of participants worked (currently or previously) in the health system in some capacity, 73.0% ($N=180$) had had a

² The questionnaire was pre-tested for ease of completion by the same ten volunteers from the general public who previewed the scenarios.

³In all cases where the total number of participants shown is less than 247, the cause is missing data.

surgical procedure at some stage, and 13.4% ($N=33$) of these reported that something had 'gone wrong' during or shortly after the surgery. Of these 33, 14 were satisfied with the hospital's response to the problem and 18 were not (data was missing for one participant).

Seventy-two participants (29.1%) responded "Yes" to the question: "Have you, or somebody close to you ever experienced a medical/health mistake or error"?⁴ Thirty-one of the 57 subsequent descriptions were categorised as incorrect diagnoses or post-operative complications, including infection. There were 13 descriptions of surgical errors, five drug errors and eight examples were not categorised.

Of the 72 participants mentioned above, 53 were unsatisfied with the response they received from the hospital. Eleven reported no response to a complaint, 13 said the response was insufficient or unsatisfactory and eight others described hostility or lack of supportiveness from hospital staff. The other 40 did not elaborate. Of the 19 participants who were satisfied, five stated that they had received an apology (three also received some form of financial restitution and the other two stated that the 'error' was due to unforeseen circumstances). The remainder did not elaborate.

Descriptive Data

An overall picture of the questionnaire data is presented in Table 1 (on the following page) in order to orient the reader to the relative magnitude of participants' ratings of: their perceptions of the surgeon; the sufficiency and sincerity of the apology offered; the extent to which they thought the surgeon was sorry; and how forgiving they would be in response to each of the five disclosure scenarios.

The indications of the data displayed in Table 1 are that perceptions of the surgeon were moderately favourable and the mean ratings of apology sufficiency and sincerity, the surgeon's sorriness and the likelihood that he would be forgiven were all higher (more positive) than the midpoint (3) of the measure of agreement scales.

Additionally, the open disclosure communication that included the complete apology (that is, the elements of admission, acknowledgment, regret, remorse, restitution and reparation) was associated with more favourable perceptions of the surgeon, including the perception that he appeared sorrier, and with views that the apology

⁴Note that these responses reflect participants' lay perceptions of what constitutes a mistake or error.

was more sufficient and more sincere than the other four types of communication. The descriptive data also indicate that the participants were more willing to forgive the surgeon after seeing the scenario that included a basic apology that also included remorse and reparation than after the complete apology (the same apology but including acknowledgment of the effect of the incident on the patient).

Table 1

Means and Standard Deviations of Response Data on Perception, Sufficiency, Sincerity, Sorrowiness and Forgiveness Questions by Scenario

APOLOGY	SCENARIO									
	1 basic		2 complete		3 basic+remorse		4 bas+rem+acknowl		5 bas+rem+reparat	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Perception^a	22.16	5.54	23.03	5.56	21.83	5.21	22.52	5.39	22.68	5.15
Sufficiency	3.64	1.05	3.84	1.00	3.54	1.00	3.75	0.95	3.84	1.02
Sincerity	3.77	0.95	4.00	0.84	3.66	0.92	3.92	0.79	3.88	0.91
Sorrowiness	3.75	1.01	4.07	0.75	3.69	0.92	3.94	0.91	3.90	0.96
Forgiveness	3.43	0.96	3.56	0.92	3.38	0.92	3.55	0.93	3.64	0.89

Notes: $N=251$. ^a scores 6 (low) to 36 (high); other scores were 1 (low) to 5 (high).

Analysis by Open Disclosure Scenarios

Data analysis was performed on the five response rating measures: perceptions of the surgeon, the sufficiency and sincerity of the apology offered, the extent to which the surgeon was sorry, how forgiving people would be and on the response frequencies on the question about further action for each of the five open disclosure scenarios. Results are presented in the order of the least to most complex in terms of analysis and interpretation.

“What action should be taken against the surgeon”?

Response frequencies are reported in Table 2.

Chi-squared analysis showed that there was no significant association between scenario type and the type of action that participants deemed should be taken against the surgeon.

Table 2

Frequencies of Responses on Action by Scenario

APOLOGY	SCENARIO					Mean %
	1 basic	2 complete	3 basic+remorse	4 bas+rem+acknowl	5 bas+rem+reparat	
No action %	130 54.6	132 55.2	124 52.5	133 54.7	123 51.5	53.7%
Complaint %	91 38.2	97 40.6	101 42.8	100 41.2	106 44.4	41.4%
Legal action %	17 7.1	10 4.2	11 4.7	10 4.1	10 4.2	4.9%
N/Sum	238	239	236	243	239	100%

“How sincere was the apology”?

The distributions of responses to this question were not amenable to statistical data analysis that relies on score patterns that approximate the normal (bell-shaped) curve. The distribution of scores for every scenario was negatively skewed (i.e., scores were mostly at the higher end of the scale) and leptokurtic (peaked and narrow, with little variability). Responses on this measure for each scenario are shown in Table 3. On the rating scale 1 (low) to 5 (high), a score of 3 represents the rating ‘undecided’. A score of 4 represents the rating ‘fairly sincere’. Visual inspection of the data and descriptive statistics supported a conclusion that the majority of participants regarded all the versions of the apologies as more sincere than insincere, no matter what type it was. This measure was therefore excluded from further statistical analysis.

Table 3

Means and Standard Deviations of Sincerity of Apology Ratings by Scenario

APOLOGY	SCENARIO				
	1 basic	2 complete	3 basic+remorse	4 bas+rem+acknowl	5 bas+rem+reparat
Mean	3.77	4.00	3.66	3.92	3.88
SD	0.95	0.84	0.92	0.79	0.91

Notes
N = 251

Perception of the Surgeon

This measure comprised the sum of six responses to statements about participants' feelings, beliefs and behavioural intentions towards the surgeon depicted in the scenarios. The overall means for each of the scenarios showed that, on average, participants generally had a positive perception of the surgeon.

This was the only measure with score distributions that permitted a straightforward ANOVA (analysis of variance) between the scenarios. The one-way, repeated measures ANOVA showed that there was a significant difference ($p < .001$) between the effects of the scenarios on participants' perceptions of the surgeon.

Post-hoc comparisons of mean perception scores for each of the scenarios showed that the differences were:

- Perceptions of the surgeon were more positive for the scenarios that included a complete apology (2) than for those that included a basic apology and remorse (3), $p < .001$;
- Perceptions were more positive for scenarios that included a basic apology, remorse and reparation (5) than for those that only consisted of a basic apology and remorse (3), $p = .021$.

The first result shows that acknowledgment and reparation, together, add to the favourability of perceptions created by the basic apology + remorse scenario. The second result shows that reparation, on its own, also adds to the basic apology + remorse scenario.

“Do you think that the surgeon’s apology was sufficient”?

This item, as well as the measures of sorriness and forgiveness described below, initially presented problems for statistical analysis. The shapes of the score distributions were roughly bimodal (showing two separate groups of responses), indicating the influence of an extraneous variable. In order to identify the source of the separate score groupings, the data for each measure were grouped by demographic characteristics. Grouping by sex or whether participants had had experience of an adverse medical event (personally or through somebody close to them) did not produce distributions that were any more interpretable. Separate distributions of scores for males and females, and for participants who had or had

not had experience of an adverse event, were still bimodal. However, grouping the responses scores to each of the three measures according to age group did produce coherent data distributions. In other words, it appears that responses from participants from older or younger age groups differed in their judgments of apology sufficiency, the sorriness of the surgeon and the degree to which they would forgive him.

A median split of the sample according to age produced two equal sized groups of participants who were aged either: a) up to and including 52 years, or b) older than 52 years. Accordingly, the measures of apology sufficiency, sorriness and forgiveness were analysed using a 2x5 (age group by scenario) split-plot ANOVA.

The analysis of sufficiency of the apology scores showed no main effect for age group and no main effect for scenario type but there was a significant interaction of the two variables ($p = .014$), that is, the impact of either the age group or scenario variables on judgements of sufficiency was affected by aspects of the other variable. Post-hoc comparisons cannot be conducted for interaction effects in split-plot ANOVAs. Interpretation must rely on the interaction diagram (see Figure 2).

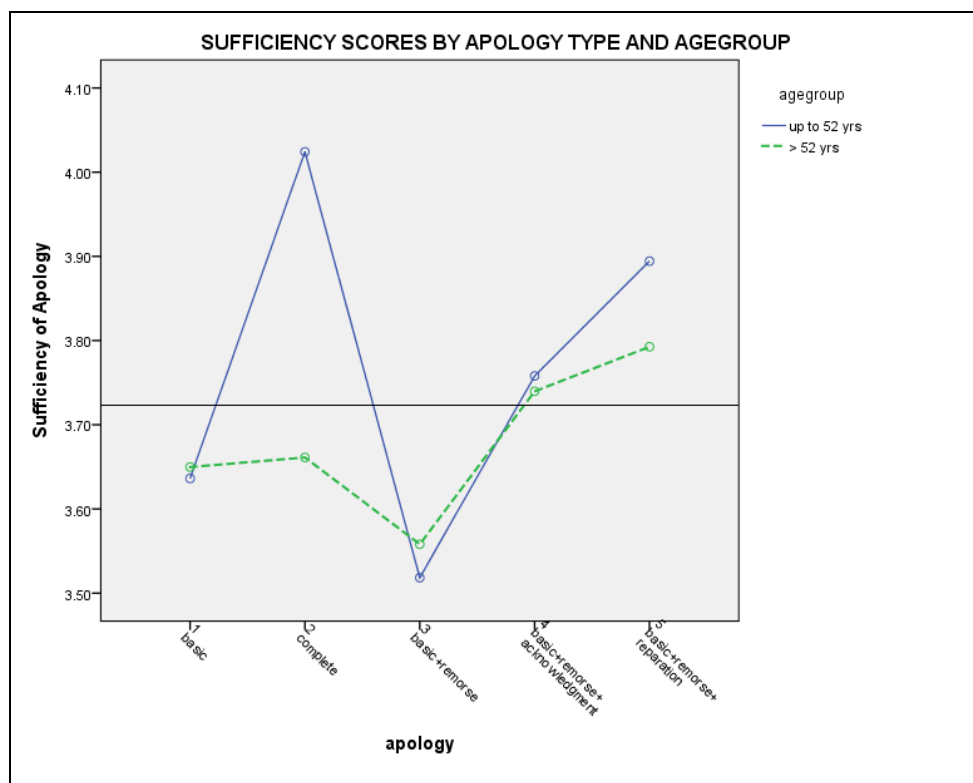


Figure 2. Effects of Scenario Type and Participant Age Group on Sufficiency of Apology

The most obvious interpretation of the interaction profile plot concerns the difference of the effect of scenario 2 (the complete apology) on judgments of sufficiency for the two age groups. Both age groups regarded the other four apology types as similarly sufficient. However, the younger group judged the complete apology to have greater sufficiency than did the older participants.

“How sorry does the surgeon feel”?

The analysis of judgments of how sorry the surgeon felt also showed no main effect for age group and no main effect for scenario type but there was a significant interaction of the two variables, $p < .001$. As stated, post-hoc comparisons cannot be conducted for interaction effects in split-plot ANOVAs. Therefore, interpretation must again rely on the interaction diagram (see Figure 3).

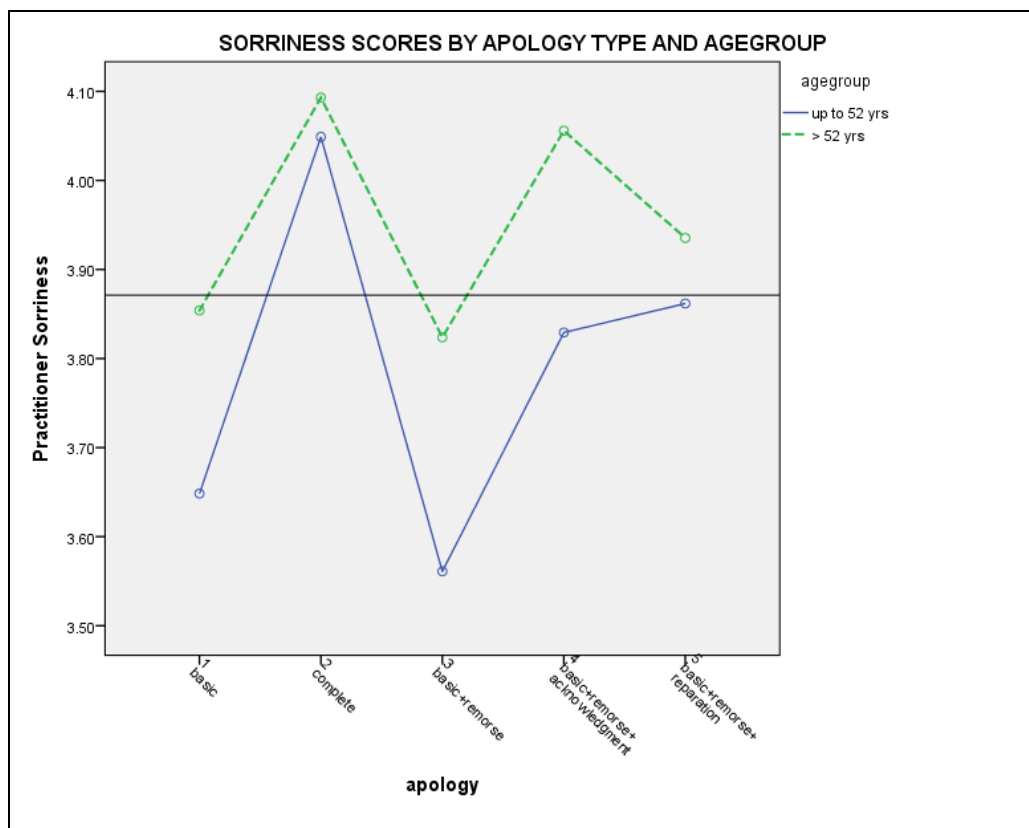


Figure 3. Effects of Scenario Type and Participant Age Group on Sorriness of Surgeon

The disordinal interaction (i.e., the plot lines do not intersect as in an ordinal interaction) is difficult to interpret. All participants thought that the surgeon was most sorry in the complete apology scenario (2) and there is negligible difference between the age groups in that instance. There is also little difference between the opinions of younger and older participants in response to the basic apology + remorse + reparation scenario (5). The interaction effect appears to be in the fact that, in contrast to the aforementioned similarities of opinion, older and younger participants differed in their judgments of the surgeon's sorrow in response to the other three scenarios. Older participants viewed the practitioner as more sorry than did the younger group in response to the basic apology (1), the basic apology + remorse (3), and the basic apology + remorse + acknowledgment scenarios (4).

“How forgiving would you be towards the surgeon”?

The analysis of participants' judgments of how forgiving they would be showed no main effect for age group, a significant main effect for scenario type ($p < .001$) and no interaction. Post-hoc comparisons were conducted in order to pinpoint the differences between scenarios indicated by the significant main effect.

Post-hoc comparisons of the effect for scenario type showed that:

- Participants would be more forgiving after a complete apology (2) than after a basic apology and remorse (3), alone, $p = .012$.
- They would be more forgiving after a basic apology and remorse and acknowledgment (4) than after a basic apology and remorse (3), alone, $p = .006$.
- They would be more forgiving after a basic apology and remorse and reparation (5) than after a basic apology and remorse (3), alone, $p = .001$.

The first result indicates that acknowledgement and reparation, together, add value to a basic apology and remorse scenario when it comes to forgiveness. This result is consistent with the findings on perception of the practitioner. However, unlike the findings on the perception measure, the second and third results reported above show that both acknowledgment and reparation, on their own, add to the basic apology and remorse scenario.

Conclusions

In the course of this study we used Slocum and colleagues (in press) multidimensional theory of apology to develop five alternative versions of a remedial communication task which detailed an explanation of an error by a professional. To determine the acceptability of the different versions of the communication, 251 volunteers viewed the five video simulations and, after viewing each one, recorded their impressions on a questionnaire. Participants were asked to respond to questions about: their perceptions of the professional who made the disclosure; the apology's sufficiency and sincerity; the practitioner's sorrow; the likelihood of a recipient of the communication forgiving the professional; and potential further action such recipients might take.

Overall, the results of the research provide evidence that Slocum et al.'s (in press) theory of apology has explanatory and practical value in remedial communications such as effective open disclosure. It was found that the inclusion of any type of apology in an open disclosure communication that affirmed the incident and consequent affect, and that included an intention to act resulted in minimal intention to take legal action (4.9% of participants on average) and generally favourable perceptions of the apology's sincerity. This confirms Slocum et al.'s conclusion that there is no such thing as a perfect apology, but that what will be a *good enough* apology depends on the severity of consequences of the error, the level of responsibility attributed to the wrongdoer and the perceived wrongfulness of the behaviour. Taken together with the generally positive responses to the remaining measures (surgeon perception, apology sufficiency, sorriness, and forgiveness) that were shown in Table 1, there might be an alternative explanation for participants' consistently favourable reception to all five open disclosure communications tested in this study. It is possible that they reflect previous research findings that people often accept an apology, of any kind, because they want to appear gracious or, more probably, because they want to look good in the eyes of others and because there is an implicit social norm that people who are offered apologies accept them (e.g., Bennett & Dewberry, 1994; Risen & Gilovich, 2007).

Participant data on surgeon perception, apology sufficiency, sorriness, and forgiveness were analysed in order to determine whether they differed according to the five different open disclosure communications. In terms of perceptions of the surgeon, responses to the communication that included a complete apology (admission, regret, restitution, remorse, reparation and acknowledgment), as well as

well as one that included admission, regret, restitution, remorse and reparation, only (a complete apology minus acknowledgment of the effect of the incident on the patient) both produced more favourable perceptions than a basic, self-focussed apology with an expression of remorse. The finding indicates that reparative intentions might be of particular importance to perceptions of health practitioners following an adverse incident.

An age group covariate was introduced into analysis of the remaining three measures (sufficiency, sorriness and forgiveness) because participants who were older (> 52 years) or younger (52 years or less) appeared to differ in their judgments of apology sufficiency, the sorriness of the practitioner and the degree to which they would forgive him.

Participants' judgments of the sufficiency of the apologies in the open disclosure scenarios varied according to their age group. The key to this statistical interaction was in the differing evaluations of the older and younger participants of the sufficiency of the communication that included a complete apology. Both groups regarded the other four apology types as similarly sufficient, however, the younger group judged the complete apology to be more sufficient than the older age group of participants. It appears that older and younger patients might have different requirements of open disclosure communication in terms of what is sufficient for their needs and expectations (for a similar finding in another context see Onliner, 2005).

Age group and type of scenario also interacted on the measure of how sorry participants thought the surgeon was. All participants viewed the practitioner as most sorry in response to the complete apology communication and the difference between the mean scores of the older and younger groups was negligible. There was also little difference between the opinions of younger and older participants in response to the basic apology, remorse and reparation scenario. The interaction of the age group and type of communication variables appeared to lie in the contrasting opinions of older and younger participants in their perceptions of how sorry the practitioner was in response to the other three open disclosure scenarios. Older participants viewed the practitioner as sorrier than the younger group in response to the communications that included the basic apology; the basic apology with remorse, and the basic apology with remorse and acknowledgment. This result is a further indication that the impact of patient age on responses to open disclosure communication will benefit from future investigation.

Initial indications that the age group of participants had an impact on potential forgiveness of the practitioner were not borne out by the results of further analysis. However, forgiveness did differ according to the type of open disclosure scenario. The extent to which participants would forgive the surgeon was greater for the communication that included the complete apology; the basic apology with remorse and acknowledgment scenario, and the basic apology with remorse and reparation scenario than for the scenario that included a basic apology and remorse, alone. This finding demonstrated the importance of both reparation and acknowledgment to forgiveness.

Recommendations

The purpose of this study was the development of a video task of remedial behaviour for use in communication training of health professionals with specific reference to open disclosure practice. The study results suggest a number of recommendations.

Firstly, the use of a video task based on Slocum et al.'s multidimensional theory of apology (in press) and depicting a series of remedial health communication scenarios a) effectively portrayed elements of communication that were distinguishable by respondents, and b) elicited responses that indicated patient preferences. This demonstrates that the video task developed by this study has utility for health communications training and for investigating requirements that meet patients' needs from important communications such as the disclosure of adverse events. It should form the theoretical basis of future investigations.

Second, in any future investigations of patient responses to remedial communications, such as open disclosure communications, it may be prudent to take into account a normative tendency for people, including patients, to respond favourably to view any kind of disclosure, whether or not it meets their needs.

Third, younger and older patients respond differently to elements of remedial communication. It is possible that younger people are more attuned to the nuances of an open disclosure communication and less likely to accept it at face value. Further research is needed to pursue the previously unobserved issue of the influence of the recipients' age group on satisfaction with remedial communication.

Finally, the importance of reparative intentions was highlighted by the results of this study. In the terms of the theoretical basis, reparation addresses practical and psychological needs for redress and reform. The findings of this study lend weight to the anecdotal evidence that the paramount needs of patients and families who have experienced an adverse event are, *For somebody to say sorry and for it not to happen to anybody else* (e.g., Safe Patient Project, 2009; a common verbal theme at the Australian Patients for Patient Safety Forum, 2009). The surgeon's plans for review and reform were important to respondents. This indicates concerns that go beyond the kinds of harms that are able to be compensated.

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Appendix A

Rationale for Open Disclosure Scenarios

A simple depiction of Slocum, Allan and Allan's (in press) theory and the scenario text that relates to each element of the theory to remedial communication in open disclosure:

	Affirmation	Affect	Action
Self-other focus	A Acknowledgement	B Remorse	C Reparation
Self-focus	X Admission	Y Regret	Z Restitution

Admission (X)

During the surgery we found that your appendix was stuck to the wall of your bowel. This made the operation less straightforward than it would have been. When I was separating and removing your appendix I accidentally made a small nick to your bowel. As soon as we noticed this, we washed out the area and sewed up the hole. Now we need to keep you under observation and on the antibiotics to make sure you don't develop an infection.

Acknowledgement (A)

This mistake could have led to serious infection and illness. I'm also concerned that it won't be pleasant for you to be in hospital on a drip when you could have been home.

Regret(Y)

I am really sorry about this. I wish it hadn't happened.

Remorse (B)

I feel badly about the discomfort this has meant for you and the potential risks of the situation you were put in.

Restitution (Z)

I'd like to try to make this up to you in some way. You won't be billed for the surgical procedure and I want to meet any other expenses that you have as a result of the longer stay in hospital.

Reparation (C)

I'm going to review the way I do this procedure to make sure this doesn't happen again. The hospital is also investigating the incident and the Patient Liaison Officer will come to see you and keep you informed of progress.

Our previous research showed that acknowledgement, remorse and reparation elements 'add value' to a *basic apology* comprising admission, regret and restitution elements because they demonstrate a focus on the wronged person. The six elements of the theory, together, are perceived as a genuine, *complete apology*. For brevity, 'apology' will hence be used in place of 'open disclosure communication'.

The systematic combination of every element of the theory – with the omission of elements A, B, or C in the absence of their corresponding elements of X, Y or Z – resulted in a matrix of 26 separate types of apology. That number of research stimuli would have demanded the recruitment of an extremely large number of participants and would also have presented an unmanageable, as well as unpalatable, task for participants. The rationale for reducing the number of apology types tested to five was as follows:

- a) A Within-Subjects design was indicated in order to avoid the potential confounding effect of extraneous Between-Subjects variance, but:
- b) 26 apologies are far too many for a single participant to respond to.
- c) The theory is complex and this is a preliminary test of its applicability to the open disclosure context. Therefore:
- d) It is justifiable to test an incomplete matrix of apology elements that has a sound basis in the grounded theory from which it was developed.
- e) The grounded theory indicates that:
 - The basic requirements of an apology are X+Y+Z. This type of apology must be included.
 - A full apology that demonstrates a self-other focus and that conveys true sorrow that leads to forgiveness is represented by XA+YB+ZC. This must also be included.
 - A key component of a full apology appears to be the expansion of Y to include B (YB – regret-remorse). Therefore, the apology type X+YB+Z must be included in order to test the additive effect of an expression of remorse to a basic apology. Following from this:
 - Inclusion and comparison of apology types XA+YB+Z and X+YB+ZC will indicate what A and C add to an X+YB+Z apology. If they do not add anything (in terms of acceptability, etc. of apology) it begs the question of whether they are essential elements of an apology in this context.
- f) Therefore, the revised apology type matrix should be:
 - X+Y+Z
 - XA+YB+ZC
 - X+YB+Z
 - XA+YB+Z
 - X+YB+ZC

That is:

- **1** basic
- **2** complete
- **3** basic + remorse
- **4** basic + remorse + acknowledgment
- **5** basic + remorse + reparation

Appendix B

Research Questionnaire

QUESTIONNAIRE **HEALTH COMMUNICATION**

This questionnaire asks for your opinions of a communication between a health practitioner and a patient. We need you to imagine that you are the patient and how you would react.

You will see five brief video clips and, after watching each one, you will be instructed to indicate your responses on this questionnaire.

All five videos use the same characters and introduction so they are quite similar. They might seem repetitive but please do not let that concern you. You only need to answer the questions with *the clip you have just seen* in mind.

There are no right or wrong answers to the questions. We are just looking for your personal opinions.

<p>Please press PLAY once you have understood these instructions.</p>
--

RESPONSES TO VIDEO SCENARIO ONE.

(remember to imagine yourself in the patient's shoes)

1. Please rate your agreement with the following statements in relation to the surgeon.
(circle one number for each)

Statements	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
I feel warm towards him.	1	2	3	4	5	6
I feel angry at him.	1	2	3	4	5	6
I think he is incompetent.	1	2	3	4	5	6
I blame the surgeon for this problem.	1	2	3	4	5	6
I would have him as my surgeon again.	1	2	3	4	5	6
I think he understands what his patients need.	1	2	3	4	5	6

2. Do you think that the surgeon's apology was sufficient?

 Definitely not. Probably not. Undecided Probably, yes. Definitely, yes.

3. How sincere was the apology?

 Extremely INsincere Fairly INsincere Undecided Fairly Sincere Extremely Sincere

4. How sorry does the surgeon feel?

 Not sorry at all. Not very sorry. Undecided Fairly sorry. Very sorry.

5. How forgiving would you be towards the surgeon?

 Completely UNforgiving Fairly UNforgiving Undecided Fairly Forgiving Completely Forgiving

6. What action should be taken against the surgeon?

(please tick one)

- No action.
 An official complaint to the hospital.
 Legal action.

Once you have completed your ratings, please press **PLAY** again to restart the video and view the next scenario.

The previous page is repeated four times, i.e., for:

RESPONSES TO VIDEO SCENARIO TWO.

RESPONSES TO VIDEO SCENARIO THREE.

RESPONSES TO VIDEO SCENARIO FOUR.

RESPONSES TO VIDEO SCENARIO FIVE.

It ends with:

**You have now completed the main part of the questionnaire.
Please turn over to the final page where there are a few questions about you.**

SOME GENERAL QUESTIONS ABOUT YOU

This information will ensure we have responses from a range of people.

Anonymous: Please do not record your name or any identifying information.

Q1 Please tell us your **AGE** and **GENDER** male female

Q2 Have you ever worked in the **health or medical** field?
(if yes, please give details) **YES** **NO**

Q3 Have you ever had a **surgical procedure** in a hospital? (please tick yes or no)

-- if YES please go to **Q3a**
YES

-- if NO please go to **Q4**
NO

Q3a Have you had **something go wrong** during a surgical procedure? (please tick yes or no)

-- if YES please *describe briefly* and go to **Q3b**
YES

-- if NO please go to **Q4**
NO

Q3b Was the response of the hospital staff **satisfactory**? (please tick yes or no)

---please give details **whether YES or NO** then go to **Q4**---
YES **NO**

Q4 Have you, or anyone **close to you** had experience of a medical/health mistake or error?

-- if YES please *describe briefly* and go to **Q4a**
YES

-- if NO please go to the end
NO

Q4a Was the response to this mistake or error **satisfactory**? (please tick yes or no)

--- please give details **whether YES or NO** ---
YES **NO**

☺ **THANK YOU FOR HELPING US WITH THIS RESEARCH** ☺
Please stop, eject, and return the DVD and questionnaire to the researcher.