



Making a Personal Difference: Communications in Healthcare

Bill Nichols

Abstract: Health communications (HC) is a fast-growing, potent branch of communications. Previous studies on various health contexts, from diabetes to cancer, note the importance of HC in influencing positive clinical outcomes. Phase-I of a longitudinal study extends understanding of the HC process. Using primarily bivariate correlations, it confirms positive associations between a major learning intervention (an HC PG certificate) on perceptions of a practitioner's communications effectiveness as demonstrated by a five-indicator model of consequent communications behaviours. It also finds, via regression analysis, that practitioner knowledge transfer and return-on-investment reporting are the most influential behaviours.

Keywords: health; health behaviour; education; communications

JEL classification = JEL klasifikacija: I12, I21, M39

Ustvarjanje osebne razlike: komuniciranje v zdravstvu

Povzetek: Komuniciranje v zdravstvu (KZ) je hitro rastoča, močna veja komuniciranja. Prejšnje študije o različnih zdravstvenih kontekstih, od diabetesa do raka, opozarjajo na pomen KZ pri vplivanju na pozitivne klinične rezultate. Faza I longitudinalne študije razširja razumevanje procesa ZK. Z uporabo primarno bivariatnih korelacij potrjuje pozitivne povezave med glavnim učnim posredovanjem (certifikat HC PG) o zaznavanju učinkovitosti komuniciranja praktika, kot je prikazano s pet indikatorskim modelom posledičnega komunikacijskega vedenja. Prav tako ugotavlja, da je prek regresijske analize najbolj vplivno vedenje prenosa znanja in poročanja o donosnosti naložb.

Ključne besede: zdravje, zdravstveno vedenje, izobraževanje, komuniciranje

JEL klasifikacija: I12, I21, M39

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1 Introduction and Literature

1.1 Never Mind Fakery: Health Communications and Clinical Outcomes

Professional communicators, it seems, live in an era of fake news generators, bots, viral algorithms, presidential twitterstorms and electoral manipulation (Allcott and Gentzkow, 2017; Kennedy 2017). Understandably, beneficial innovations in communications are often obscured.

Nonetheless, such gains persist: perhaps most tangibly in the “vibrant, complex and significant” field of health communications (‘HC’, Harrington, 2015, p. 5). Health is a state of complete well-being and not merely the absence of disease or infirmity (WHO, 1948). Health, or clinical, outcomes are the actual results of care (Porter, 2010), the “results people care about most when seeking treatment, including functional improvement and the ability to live normal productive lives” (ICHOM, 2018).

Accordingly, HC “is the study of *messages* that create *meaning* in relation to physical, mental and social well-being” (Harrington, 2015, p. 9, author’s ital). Further, as an intervention, HC’s “consequences affect the *quality* of life or even the *absence* of life” (Thompson, Robinson and Brashers, 2011, p. 633, author’s ital).

Accordingly, HC covers: “the study and use of communications strategies to inform and influence individual and community decisions that *enhance health*” (CDC, 2001; Schiavo, 2014; author’s ital). To this end, HC conceptualises communication comprehensively (i.e. more broadly than traditional public relations’ theory). It extends from interpersonal practice (Hargie, 2011) to traditional external communications (Schiavo, 2014).

HC is founded on well-established health behaviour models (Manika and Gregory-Smith, 2017). Critically, according to recent literature, HC itself is confirmed as a modest, but statistically significant, antecedent of certain clinical outcomes. Many of these studies use the CAHPS model (Consumer Assessment of Healthcare Providers & Systems, CMS, 2018). This ensures replicable consistency among reported effects e.g. between HC and:

- Patient adherence to treatment regimes (Zolnieriek and Dimatteo, 2009);
- Physician-trust and patient-belief in ‘whole person’ understanding (Safran et al., 1998);
- Across both culture and multiple conditions, from diabetes to cancer (Doyle Lennox and Bell, 2013; Price et al., 2014).

Confirmation of this relationship between HC and clinical outcomes moves HC study beyond the traditional business communications’ ‘Holy Grail’ quest: to find an agreed model of outcome evaluation (Pavlik, 1987, p. 65). In this pursuit, a 40-year substantial literature (Likely and Watson, 2013; Watson and Noble, 2014) addresses issues from time and budget to aversion to scientific methodology (Watson 1994). Normative standardisation arrives with the ‘Barcelona Principles’ (AMEC, 2010). These principles aggregate both qualitative and quantitative practice (AMEC, 2010; Michaelsen and Stacks, 2011; Macnamara, 2014). On this track today, business communications’ evaluation remains multi-faceted, complex and sometimes controversial.

But in HC the opportunity is significantly different. In HC, targeting clinical outcomes, we may potentially innovate HC practice by seeking to extend our understanding of:

- I. Antecedents and the process mechanism (by which outcomes are achieved);
- II. The mechanism’s potential optimisation; and, ultimately,
- III. Its wider generalisability.

1.2 Communications Effectiveness: Domain and Potential Role

To explore this process mechanism, our initial study focuses on the construct of *Communications Effectiveness* (‘CE’). CE is broadly defined as “the formal as well as informal sharing of meaningful and timely information” (Sharma and Patterson, 1999, p. 158). in trust-communication theory, CE is an antecedent of *Trust* and, by extension, of *Relationship Quality* (Morgan and Hunt, 1994). It is widely deployed in service/ professional services literature, partly as a proxy for *Service Performance*. Recent literature relates CE (especially interpersonal communications style) to e.g.:

- I. (Patient) psychological comfort;
- II. Co-production and value co-creation;
- III. (Patient) engagement and experience management; and
- IV. Empowerment (Patterson, 2016).

Practically, we distinguish (i) the individual professional practitioner's embedded *CE* (measurable intentionality) from (ii) its observable effects (measurable communications behaviours). I.e. deep knowledge of what should be 'best practice' does not necessarily translate to exemplary behaviours.

Components for embedded *CE* – knowledge, skills and expertise – derive from the excellence stream of public relations literature (Dozier, Grunig, L. A. and Grunig, J. E., 1995). On the behavioural side (e.g. building relationships, influencing and persuading, consulting and involving) they are founded in a landmark senior competencies' study (Gregory, 2008). As such they align with Sharma and Patterson's (1998, pp. 158-159) empathy, accuracy, honesty and education to informed decisions. Additionally, this side integrates communications leadership e.g. strategic decision-making capability and problem-solving ability (Meng et al., 2012).

1.3 Intervention and Model

To proceed, we sought an intervention to fulfil three criteria i.e. that it would:

- I. Target improvement in individual *Communications Effectiveness* ('*CE*');
- II. Offer effects observable longitudinally; and
- III. Provide indicators to confirm respectively:
 - i. Intervention effects;
 - ii. Increase/decrease in level of individual embedded *CE*; and
 - iii. *CE* behaviour change manifesting the effects of embedded *CE*.

Complying with criterion (I) we identified three potential interventions including:

- i. Public health promotion specifically, with reference to non-communicable diseases (NCDs) such as obesity (Manika and Gregory-Smith, 2017), the communicator/ patient/carer triad;
- ii. Also, with NCDs in mind, application of emerging polymedia theory. It posits a new social-technological relationship: a "communicative environment of affordances rather than... a catalogue of ever proliferating but discrete technologies" (Madianou and Miller, 2012, p. 169). It is founded on affordance theory (Gibson, 1966) i.e. the observed interactions of people shaping their media environments, perceiving them and having agency within them (Nagy and Neff, 2015).

Both options are compelling. However, we selected (iii) learning i.e. "a persisting change in human performance or performance potential...[which] must come about as a result of the learner's experience and interaction with the world" (Driscoll, 2000, 11). Learning, in our assessment, offers both control and management. It also fulfils criterion (II) by supplying observable opportunity: in our case access a dedicated UK-first, postgraduate certificate in health communications (PgCert-HC).

Drawing on field observation of, and interviews with, NHS communicators, the PgCert-HC was developed in 2014-15 by the author with colleagues at Buckinghamshire New University's (BNU) Centre for Health Communications (CHCR). It follows the principle that in health behaviour "interventions developed with an explicit theoretical foundation... are more effective than those lacking a theoretical base" (Glanz, 2017, p. 21).

In its final validated version, the four-module, 60-credit PgCert-HC specifies four learning outcomes (BNU, 2016). These align with the putative domain components for both embedded *CE* and its behavioural consequences (1.2 above):

- I. "In-depth knowledge"...

- II. .. and 'comprehensive skill-set' (Dozier, Grunig, L. A. and Grunig, J. E., 1995; BNU, 2016);
- III. Leadership and management (Meng et al., 2012) - "necessary critical analysis, insight and leadership in communications-related matters" (BNU, 2016); and
- IV. Self-development (Gregory, 2008), to help "senior practitioners to acquire the necessary confidence and self-esteem to achieve board-level capability and rank" (BNU, 2016).

The PgCert-HC was commissioned by the NHS Trust Development Authority (NHS-TDA)¹, an arms-length constituent body of the UK National Health Service (NHS). UK NHS is not, as sometimes misconstrued, one entity. Its complex structure comprises some 400, often substantial organisations. Mean income, for example, of the 101 acute, mental and community health trusts is ~£300.7m/€336.7 m (DH&SC, 2014).

The PgCert-HC's student profile is senior:

- Typically, 'head of communications' (titles vary) in one of those 400 organisations;
- UK NHS Grade 7 and above, some at/near board-level;
- Age (x) = 41; and
- Professional communications experience (x) = 14.82 years.

To date the course has admitted five cohorts/79 NHS communicators. A further eight/128 are anticipated during 2019-2022. This will take aggregate NHS coverage by organisation to ~50%.

Third, *CE* indicators (III). We adopt a variety. These are discussed further below (Section 2.3).

1.4 Principal Hypotheses

On this basis, we formulate two principal hypotheses (Figure 1):

- I. A positive increase in an individual practitioner's *Learning* (i.e. shift in personal variable) will associate with a positive increase in his/her embedded *Communications Effectiveness* (*CE*);
- II. A positive increase in a practitioner's embedded *CE* will associate with positive changes in one or more defined *Communications Behaviours* ('CBs').

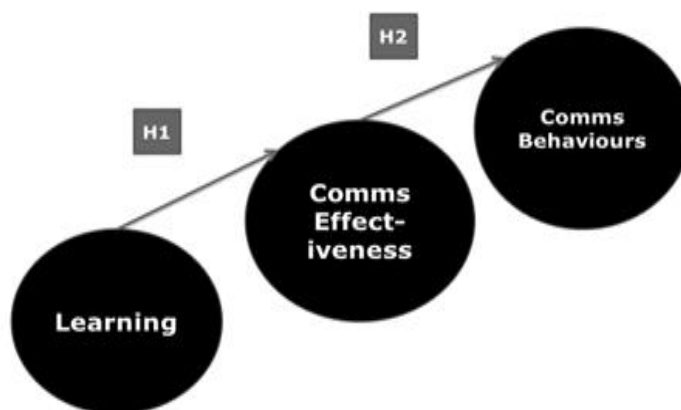


Figure 1: CE Model & Hypotheses. Source: Author.

¹ Now part of NHS Improvement.

2 Methods: Plan, Instrument and Methodology

2.1 Plan and Timeline

From induction to graduation, PgCert-HC cohorts run approximately one year. Cohort 1 commenced June 2015. The latest (Cohort 5) graduates January 2019. This parallel longitudinal research was designed and planned in Autumn 2016 as follows:

- I. March-September 2017 'Post-Effects 1': Phase I reported here, captures intervention effects (Cohorts 1-3, $N=47$) approximately 12 months after completion;
- II. September 2017–April 2018 'Baseline-Advance': employs a modified Phase I instrument (further below) to establish a pre-course expectations baseline (Cohorts 4-5, $N=32$), Phase II is currently under analysis;
Autumn 2019 'Post-Effects 2': will add Cohorts IV-V to Phase I-II data to enable a comprehensive pre- and post-study ($N=79$);
- III. Autumn 2019 'Post-Effects 2': will add Cohorts IV-V to Phase I-II data to enable a comprehensive pre- and post-study ($N=79$);
- IV. Spring 2019-'Control': finally, to isolate learning intervention effects, Phase IV will leverage a second NHS research programme designed to test the relationship between organisational commitment to communication and selected 'business' outcomes e.g. NHS regulator's quality rating, official NHS staff 'Friends and Family' data and financial performance. We will split respondents between organisations with (1) – and without (0) – a PgCert-HC graduate.

2.2 Instrument(s)

This study is, by definition, exploratory. In seeking to understand the communications-to-clinical outcomes mechanism, it addresses only one postulated antecedent (*Communications Effectiveness*) and its consequent behavioural manifestations. Accordingly, Phase I's instrument captures principally student self-reported data, adopts a mixed format and is open to evolution:

- Quantitatively, it follows established, evidence-based psychometric practice in terms of e.g. constructs employed and item-formulation and -format. It adopts best practice, for example, with seven-part Likert scales as standard (Nunnally, 1978, 595-596);
- Qualitatively, we obtain unprompted perceptions from both 'students' and their C-Level reporting line;
- Evolution may occur by item-addition (but not subtraction). Phase III/Post-Effects 2, for example, will include further investigation into both return-on-investment and networking (Section 4).

Such permissible evolution follows the evidenced principle that digital-era learning also embraces connectivity: "a process that occurs within nebulous environments of shifting core elements..., and the connections that enable us to learn more are more important than our current state of knowing" (Siemens, 2005, 03). Indicatively, to share queries, learning and experience, each cohort maintains its own WhatsApp group. This app is an increasingly evidenced mobile learning aid (Barhoumi, 2015; Doolan and Gilbert, 2017). All groups continue to thrive: in the case of Cohort 1, some 2.5 years after graduation.

2.3 Data Collection and Analysis

Data is collected throughout the programme via CHCR's own Moodle-based e-Learning portal and via Survey Monkey.

First, to frame the intervention, we assess and report: both (i) the academic level/perceived rigour of the course; and (ii) its delivery intensity.

Second, we assess the students' 'status quo ante', or pre-course benchmark, via two quantitative variables: (i) prior academic study relevance; and (ii) perceived content novelty.

Third, we establish incidence and level of improvement in embedded *CE* consequent upon intervention by reference to three principal quantitative measures: (i) course grade attainment; (ii) career grade progression and responsibility

advancement; and (iii) student self-assessment of overall improvement in *CE* (the last seven-point Likert, anchored very strongly disagree/agree, and converted to % by method cited above). In addition, as a contextual framework, we report the students' qualitative assessment of personal outcomes achieved.

Fourth, we assessed students' *CE* behavioural outcomes by reference to sample measure for improvements in each of five identified dimensions of communications practice (all cases seven-point Likerts, anchored very strongly disagree/agree and converted to % per method above):

- | | | |
|----------------------------|---|---|
| • Product/B2C PR | = | Public health promotion ('PHP') |
| • Corporate communications | = | Reputation management ('RM') |
| • Personal influence | = | Seniors willingness to listen to advice ('Adv') |
| • Management | = | Knowledge transfer ('K-T') |
| • Evaluation | = | Assessed return on investment ('RoI'). |

In addition, as an independent verification, we report the qualitative assessment of each student's progress by their immediate line manager – typically the organisation's CEO or COO.

Fifth, we deploy multiple regression analysis (MRA) to identify, irrespective of rating, which (if any) of these behaviours has a significant influence on the communicator's environment. In this context, students' assessment of overall, or cumulative satisfaction - with, in aggregate, intervention, learning gain and effectiveness of consequent behavioural change - provides the criterion or target variable.

Sixth and finally, we seek to quantify the value (or return-on-investment [RoI]) of the influence (if any) obtaining.

3 Results

3.1 The Learning Intervention: Course Rigour and Intensity

First, in terms of scope and rigour, the PgCert-HC is a UK Level 7 programme. It also holds both recognition and full accreditation from the UK Chartered Institute of Public Relations (CIPR) versus the CIPR's Diploma. The latter (and, by implication, the PgCert-HC) complies with the Global Body of Knowledge ('GBOK') practitioners' competency framework. This was developed by the Global Alliance for Public Relations and Communications Management (2015).

Second, in terms of intensity, the programme sets a 'high bar'. Delivery is intense. To maximise efficiency and engagement, a five-day residential model, including evenings, applies per module (i.e. four per course). 'Face-time' delivery averages 38.75 hours per week.

3.2 Students: 'Status Quo Ante' Intervention

First, prior academic study relevance: based on assessment at recruitment >80% of students:

- Neither held a relevant academic qualification (e.g. first or masters' degree in public relations, journalism or marketing)
- Nor had entered the 'classroom' for >15 years.

Second, content novelty: advance field research identified that the typical student was unlikely to have encountered a range of content across the four modules, indicatively: (i) Interpersonal (100%); (ii & iii) Engagement and Management Communications (~50%); and (iv) External (~10-15%).

3.3 Measuring Embedded Communications Effectiveness

As noted above (2.3), the measured learning gain (or embedded *CE*), is assessed principally by three quantitative measures: (i) course grade attainment; (ii) career grade and responsibility advancement; and (iii) students' overall assessment of their advance in *CE*. In addition, one qualitative measure, personal outcomes, provides a complementary framework.

First, grade attainment:

as an unadjusted indicator, over 95% of Cohort 1-4 students ($N=63$) attained either a Merit ($\geq 60\%$) or Distinction grade ($\geq 70\%$, Figure 2):

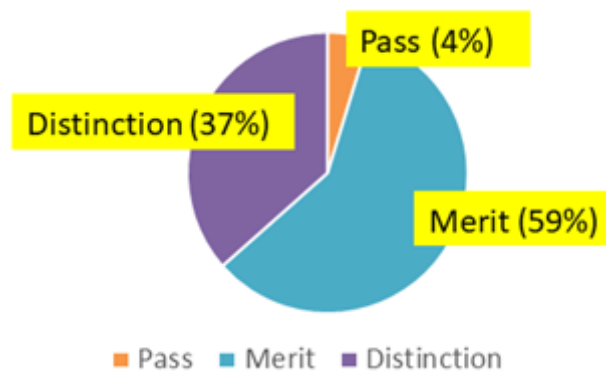


Figure 2: CHCR PgCert-HC Cohorts 1-4 Grade Assessment, Source: Author (2018)

Benchmarking at Buckinghamshire New University (BNU), this outcome exceeds any other master's discipline cohort over 10 years' University records. Anecdotally reported 'strong' cohorts achieve typically ~40% merit/distinction grading. Assessment integrity is supported by:

- CHCR's retention of a specialist independent marker, Bernard Carey, (also CIPR chief qualifications examiner and chair (2017) of its recent syllabus review); and
- An additional review commissioned by BNU's academic quality directorate which proposed *upwards* revisions only.

Second, grade and responsibility advancement: once rigid and hierarchical grade-scales and cultures no longer characterise many workplaces. In the British NHS, as measured by the classic competing values framework (Quinn, 1988; Cameron and Quinn, 2011) and although diminished, the 'hierarchical' remains a potent reference-point (Jacobs et al., 2013).

Accordingly, it is germane to note that in the 12 months post-graduation:

- 39% secured formal promotion by one or more grades (maximum an unusual three); and
- 65% ($N=38$) assumed formally denoted increased responsibility.

Third, graduates are very positive (80.07% rating) about their own degree of personal improvement in CE.

Fourth and finally, student personal outcome perceptions confirm the acquisition of skills/learning/knowledge (22%, Table 1). Reporting here is unprompted. Qualitative analysis employs data reduction and simple coding (Miles and Huberman, 1984).

Table 1: PgCert-HC Student Personal Learning Outcome Perceptions (C1-3, $N=47$)

Confidence (evidence-based) & Career/PD	35.00%
Networking (peer and professional)	27.00%
Skills, learning and knowledge	22.00%
C-Level and organisational recognition	8.00%
Other	8.00%

Source: Authors (2018)

3.4 CE in Practice: Behavioural Outcomes

First, the preceding qualitative measure (Table 1) also provides a formative context for the discussion of behavioural outcomes. It suggests that the strongest outcome is the individual student's sense of confidence/self-development (35%).

This is complemented by the reinforcing effect of the 'networking outcome' (27%) whose incidence and strength is unexpected (further Section 4).

Second, the application of confidence and networking support is demonstrated contextually in the complementary line-manager/C-Level qualitative assessment of student advising/influencing competency. Relevant keywords include: strategic advice, planning, influencing, outcome-focused (Table 2):

Table 2: PgCert HC C-Level Perceptions of Learning Outcomes (C1-3, N=47)

1. An immense impact...	4. Steadfastly <i>outcome focused</i> ; uses evidence to frame her arguments; much more effective in <i>influencing</i> ;
2. ... <i>Judgement</i> when confronted by challenging issues; enhanced communications <i>planning</i> skills; taking the initiative; <i>advice</i> to senior managers...great potential as a future communications leader.	5. Now entirely comfortable operating at the <i>strategic</i> level, her advice is carefully considered, <i>nuanced</i> and entirely appropriate.
3. Learning clear in <i>choice and execution</i> of projects	6. A structured programme such as this postgraduate course presented an ideal opportunity for further <i>leadership</i> and skills <i>development</i> .

Source: Author (2018)

Third, the tangible manifestation of the preceding points is a positive/very positive performance for all five nominated perceived communications behaviours (Figure 3):

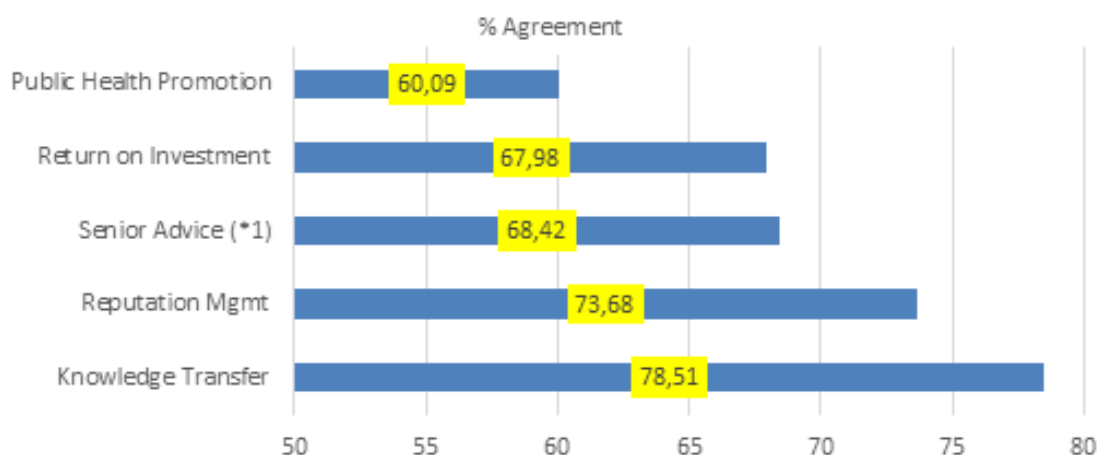


Figure 3: CE Model & Hypotheses. Source: Authors. (*1 'Perceived willingness to listen to advice')

Public Health Promotion's ('PHP') weaker, or 'laggard', status is probably attributable to its (relatively) low priority among NHS front-line organisations'. National PHP campaign responsibility vests in Public Health England (another NHS constituent arms-length body).

Fourth, extensive relationships exist among the five behavioural variables. These are evidenced by predominantly moderate) bivariate correlations ($r = .40-.59$, $p < .01$; Evans, 1996). Only two correlations are non-significant (Table 3 overleaf). Thus, one variable's increased competency influences increase in others (Evans, 1996).

Fifth and finally, by extension the intimate association between all five and the self-assessed improvement in *CE* (above 3.3) is evidenced uniformly by strong (0.60-0.79 $p<.01$) or very strong (0.80-1.00 $p<.01$) correlations (Table 3 overleaf).

Table 3: CE Behaviours – Bivariate Correlations (C1-3, $N=47$)

	CE	RM	Adv	PHP	Rol	K-T
CE		0.81	0.64	0.63	0.73	0.62
RM	0.81		0.49	0.55	0.63	0.52
Adv	0.64	0.49		0.49	0.51	0.42
PHP	0.63	0.55	0.49		0.53	
Rol	0.73	0.63	0.51	0.53		
K-T	0.62	0.52	0.42			
r = correlation co-efficient (-1.00-(+)1.00)						
	very strong (0.8-1.0)					
	strong (0.6-0.79)					
	no significant correlation @ $p<.01$					

Source: Author.

3.5 Influence Achieved: Variables

The above associations (3.4, Table 3) between *CE* and (among) the five behavioural variables, provide confidence for further investigation: to establish those behaviours' perceived level of influence. To facilitate analysis, our instrument design framed *Cumulative Satisfaction* (again a seven-point Likert) deliberately and impersonally in terms of 'your organisation and, as appropriate, the wider NHS'.

To proceed, a multiple regression analysis (MRA, Hair et al, 2006:169ff) deploys:

- *Cumulative Satisfaction* as criterion (or outcome) variable; and
- The five communications behaviours plus *CE* itself as putative predictor variables.

As measured by the regression coefficient (F), overall findings are significant [$F(6,31)=16.46$, $p<.01$]. Only two behavioural variables however, load as measured by:

- The standardised regression coefficient (β). (The higher the weight the greater the influence always noting that β may >1.0 where multicollinearity applies); and
- The 95% significance level [$p<.05$] accepted in accordance with common practice (Hair et al 2006:169ff).

The relevant variables, upon which accordingly influence is founded, are:

- "Delivery of Rol for your organisation by your function' ($\beta=.36$, $p<.05$); and
- 'The sharing of your learning ("knowledge transfer") with colleagues and others' ($\beta=.38$, $p<.01$).

3.6 Quantifying Return-on-Investment (Rol)

Finally, and stepping beyond the MRA (3.5), determining the quantum of Rol is highly desirable for any given case. This applies for: (i) NHS assessment of return on course investment; (ii) wider investigation of the communications antecedents of clinical outcomes; and (iii) to secure a clearly quantified framework overall.

In these results, however, Rol determination is a 'work-in-progress'. To avoid both bias and risk of excluding germane factors, this Phase-I of the intervention adopts an unprompted approach to data-collection. Following common research practice, results obtained will facilitate a prompted quantitative format in later phases.

In its current raw form, data is partly incompatible (i.e. for analogy compare *Apples* vs. *Oranges* vs. *N* varieties of other fruit).

Nonetheless, we offer a strictly conservative reconciliation. In summary ~70% of course participants highlight one or more of (indicatively numerated):

- Saving one/more staff posts (annually £40K [€44.8K] without overhead uplift)
- Greater departmental efficiency (range +10-25%)
- In-sourcing former specialist consultancy work (range £10-15K [€11.2K-16.8K])
- (Least quantifiable) greater overall effectiveness/strategic impact.

Interestingly, *no* respondent attempted to quantify the value of the (extensive) knowledge transfer undertaken (a key point for future 'rounds').

With great caution, these parameters suggest average RoI of 3:1 in Year 1 (i.e. £30K versus £10K [€11.2K] course investment) and potentially of 5:1 over Years 1-3.

The significance of these findings is discussed next (Section 4).

4 Discussion and Implications

This paper reports Phase I of a planned, extended and longitudinal study. It investigates the communications antecedents – here *Communications Effectiveness* ('CE') only (Sharma and Patterson 1998) - of identified clinical outcomes (Doyle, Lennox and Bell, 2013; Price et al., 2014) in the field of health communications (HC, Harrington, 2015).

Phase I moves us one and a half steps forward. It supports H2 and provisionally supports H1:

- I. A positive increase in an individual practitioner's *Learning* (i.e. shift in personal variable) will associate with a positive increase in his/her perceived *Communications Effectiveness* (CE);
- II. A positive increase in a practitioner's CE will associate with positive changes in one or more defined *Communications Behaviours* ('CBs').

Support is provisional in the case of H1 until Phase-IV. This will allow us to control for the effects of the learning intervention versus organisations uninfluenced by the presence of a PgCert-HC graduate. In the current isolated context, effects appear substantial. However, they may suffer mitigation or elimination in the context of organisational relationship commitment (Moorman, Zaltman and Deshpande, 1992; Grayson and Ambler, 1999). Our adapted Phase-IV model incorporates a range of putative non-clinical outcomes (Figure 4 overleaf).

In the case of H2, we seek a deeper understanding in later phases. This will require a richer representation of the five communications behaviour dimensions (i.e. by more than one variable per dimension).

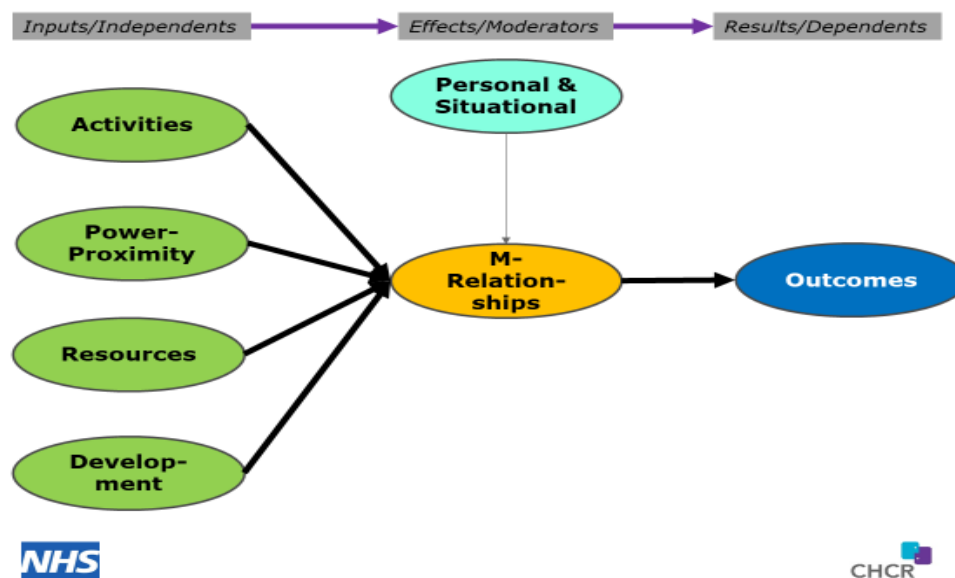
Specifically, we note that only two of five behaviours manifested significant weights (β) in the regression vs cumulative (benefit) satisfaction. Other behaviours showed *no* significant relationships notwithstanding positive indications of association in the prior analysis of bivariate correlations. This is because correlations examine *one* relationship at a time while a regression allows us to examine *all* relationships at the same time. As an analogy you may have *good* relationships with a large circle of friends but *strong influential* relationships with only two or three.

Both significant regression findings accord with practice experience. Commonly a head of communications' ability to influence 'up' to senior managers and organisational board will depend on their ability to demonstrate return-on-investment (RoI). In this context, the ability to quantify in terms of financial/business outcomes (as indicated provisionally here) adds significant power as opposed to traditional reputational metrics alone. Conversely their ability to influence down and across depends on perceived expertise and authority: hence the potency of knowledge transfer (K-T).

By extension, the reported lack of even a significant correlation between K-T and RoI is similarly explicable from practice. By convention, one does not train/share (transfer knowledge of) RoI down and across.

Finally, by implication and provisionally, C-Level managers of professional communicators should devote at least as much weight to (i) assessing the effectiveness of the individual practitioner's communications competency as, say, to the (ii) scope of a given programme or the (iii) overall configuration of a departmental resource.

Figure 4: Phase IV Model – Practice, Relationships and Outcomes



Source: Author

5 Conclusion

As a discipline, health communications (HC) dates usually to 1975 when a special interest group of the International Communications Association coined the term (Harrington 2015:4). Intriguingly, it was previously labelled 'therapeutic communications' (1972-1975). Emphasising 'therapy' recaptures some of an HC practitioner's potency to contribute to the 'complete well-being' (WHO, 1948; CDC, 2001) of individual and community alike.

It also:

- Recalls any senior practitioner's difficult-to-classify experience of a truly successful public or personal communication; and
- Aligns with the PgCert-HC's goal of equipping senior practitioners to act as the expert voice for the articulation of organisational health communications as a whole from patient and carer experience to community engagement (BNU, 2016).

In our long-term study - for which this paper is the first milestone - we are in search of both the 'difficult-to-classify' and the wider mechanism, or process. Here, the construct of *Communications Effectiveness* plays, we conjecture, a critical role.

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References

1. Allcott, H., and Gentzkow, M. (2017). Social media and fake news in the 2016 Election. *Journal of Economic Perspectives* 31(2), 211-236.
2. AMEC International Association for the Measurement and Evaluation of Communications. (2010). *Barcelona Declaration of Measurement Principles*. London: AMEC. Available at: http://amecorg.com/wp-content/uploads/2011/08/Barcelona_Principles_for_PR_Measurement.pdf. [1 August 2018].
3. Barhoumi, C. (2015). Effectiveness of WhatsApp mobile learning activities guided by activity theory on students' knowledge management. *Contemporary Educational Technology* 6(3), 221-238.
4. BNU. (2016). *Postgraduate Certificate in Health Communications [MP1HC02CH] Programme Handbook*. Buckinghamshire New University: High Wycombe UK.
5. Cameron, K. S., and Quinn, R. E. (2011). *Diagnosing and changing organisational culture: based on the competing values framework*. 3rd edition. San Francisco, CA: Jossey Bass.
6. CDC–Centers for Disease Control and Prevention. (2001). *HealthComm key: unlocking the power of health communication*, (Cited by Schiavo [2014] *infra*).
7. CIPR. (2017). CIPR to launch new professional qualifications, London UK: Chartered Institute of Public Relations. Available at: <https://newsroom.cipr.co.uk/cipr-to-launch-new-professional-qualifications/> [31 August 2018].
8. CMS-Centers for Medicare and Medicaid Services. (2018). *Consumer Assessment of Healthcare Providers & Systems (CAHPS)*. Available at: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/CAHPS/> [1 September 2018].
9. DH & SC. (2014). *Income for all NHS Trusts & Foundation Trusts FYE March 2014*, UK Department of Health and Social Care. Available at: https://www.whatdotheyknow.com/request/full_list_by_income_for_all_nhs_2 [1 September 2018].
10. Doolan M. A., and Gilbert T. (2017). Student choice: blends of technology beyond the university to support social interaction and social participation in learning. In: G. Vincenti, A. Bucciero, M. Helfert, and M. Glowatz (eds) *E-Learning, E-Education, and Online Training: Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering*. Cham: Springer.
11. Doyle C., Lennox, L., and Bell, D. (2013). A systematic review of evidence on the links between patient experience and clinical safety and effectiveness. *British Medical Journal Open* 3(1), e001570, doi: 10.1136/bmjopen-2012-001570.
12. Dozier, D. M., Grunig, L. A., and Grunig, J. E. (1995). *Manager's guide to excellence in public relations and communications management*. New York NY: Routledge.
13. Driscoll, M. (2000). *Psychology of learning for instruction*, Needham Heights MA: Allyn & Bacon.
14. Evans, J. D. (1996). *Straightforward statistics for the behavioral sciences*. Pacific Grove CA: Brooks/Cole Publishing.
15. Gibson, J. J. (1966). *Senses considered as perceptual systems*. Boston MA: Houghton Mifflin.
16. Glanz, K. (2017). *Social and behavioral theories*, Esource Research. Available at: <http://www.esourceresearch.org/Default.aspx?TabId=724> [30 June 2017].
17. Global Alliance. (2015). *Global Body of Knowledge (GBOK) project: "The standard" to practice public relations and communication management*, Version 2.03(1), Jul., Lugano: Global Alliance. Available at: <https://www.globalalliancepr.org/capabilitiesframeworks/> [31 August 2018].
18. Grayson, K., and Ambler, T. (1999). The dark side of long-term relationships in marketing services. *Journal of Marketing Research* 36(1), 132-141.
19. Gregory, A. (2008). Competencies of senior communications practitioners in the UK: an initial study, *Public Relations Review* 34(3), 215-223.
20. Hair, J. F. Jr., Black, W. C., Bain, B. J., Anderson, R. E., and Tatham, R. L. (2006). *Multivariate data analysis*. 6th edition. Upper Saddle River NJ: Pearson Prentice Hall.
21. Hargie, O. (2011). *Skilled interpersonal communication: research, theory and practice*. 5th edition. Hove: Routledge.
22. Harrington, N. G. (ed.) (2015). *Health communication: Theory, method and application*. New York NY: Routledge.
23. ICHOM – International Consortium for Health Outcomes Measurement. (2018). *Why we do it*. Available at: <http://www.ichom.org/why-we-do-it/> [18 October 2018].

24. Jacobs, R., Mannion, R., Davies, H. T. O., Harrison, S., Konteh, F., and Walshe, K. (2013). The relationship between organizational culture and performance in acute hospitals. *Social Science and Medicine* 76(1), 115-125.
25. Kennedy, J. (2017). War on Democracy: elections in 18 nations manipulated online, Silicon Republic. Available at: <https://www.siliconrepublic.com/enterprise/elections-internet-freedom-online-manipulation> [1 September 2018].
26. Likely, F., and Watson, T. (2013). Measuring the edifice: public relations measurement and evaluation practices over the course of 40 Years, in K. Sriramesh, A. Zerfass, and K. Jeong-Nam (eds.) *Public relations and communications management: current trends and emerging topics*. New York, NY: Routledge.
27. Macnamara, J. (2014). Emerging international standards for measurement and evaluation of public relations: a critical analysis. *Public Relations Inquiry* 3(1), 7-29.
28. Madianou, M., and Miller, D. (2012). Polymedia: towards a new theory of digital media in interpersonal communication. *International Journal of Cultural Studies* 16(2), 169-187.
29. Manika, D., and Gregory-Smith, D. (2017). Health marketing communications: an integrated conceptual framework of key determinants of health behaviour across the stages of change. *Journal of Marketing Communications* 23(1), 22-72.
30. Meng, J., Berger, B. K., Gower, K. K., and Heyman, W. C. (2012). A test of excellent leadership in public relations: Key qualities, valuable sources, and distinctive leadership perceptions. *Journal of Public Relations Research* 24(1), 18-36.
31. Michaelsen, D., and Stacks, D. W. (2011). Standardization in public relations measurement and evaluation. *Public Relations Journal* 5(2), 1-22.
32. Miles, M., and Huberman, A. (1984). *Qualitative data analysis*. London UK: Sage.
33. Moorman, C, Zaltman, G., and Deshpande, R. (1992). Relationships between providers and users of market research: the dynamics of trust within and between organisations. *Journal of Marketing Research* 29, 314-328.
34. Morgan, R. M., and Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing* 58(4), 20-38.
35. Nagy, P., and Neff, G. (2015). Imagined affordance: reconstructing a keyword for communication theory. *Social Media+Society* 1(2), 1-9.
36. Nunnally, J. C. (1978). *Psychometric Theory*. 2nd edition. New York NY: McGraw Hill.
37. Patterson, P. (2016). Retrospective: tracking the impact of communications effectiveness on client satisfaction, trust and loyalty in professional services. *Journal of Services Marketing*, 30(5), 485-489.
38. Pavlik, J. V. (1987). *Public relations: what research tells us*. Newbury Park CA: Sage.
39. Porter, M. E. (2010). Value in health care. *New England Journal of Medicine* 363, 2477-81.
40. Price, R. A., Elliott, M. N., Zaslavsky, A. M., Hays, R. D., Lehrman, W. G., Rybowski, L., Edgman-Levitan, S., and Cleary, P. D. (2014). Examining the role of patient experience surveys in measuring health care quality. *Medical Care Research Review* 71(5), 522-554.
41. Quinn, R. E. (1988). *Beyond rational management: mastering the paradoxes and competing demands of high performance*. San Francisco, CA: Jossey-Bass.
42. Safran, D. G., Taira, D. A. Rogers, W. H., Kosinski, M., Ware, J. E., and Tarlov, A. R. (1998). Linking primary care performance to outcomes of care. *Journal of Family Practice* 47(3), 213-220.
43. Schiavo, R. (2014). *Health communication: from theory to practice*. 2nd edition. San Francisco CA: Jossey Bass.
44. Sharma, N., and Patterson, P.G. (1999). The impact of communication effectiveness and service quality on relationship commitment in consumer, professional services. *Journal of Services Marketing* 13(2), 151-170.
45. Siemens, G. (2005). Connectivism: learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning* 2(1), 001-008.
46. Thompson, T. L., Robinson, J. D., and Brashers, D. E. (2011). Interpersonal communication and health care (633-678) in M. L. Knapp, and J. A. Daly (eds), *The Sage handbook of interpersonal communication*. 4th edition. Thousand Oaks CA: Sage.
47. Watson, T. (1994). *Public relations evaluation: nationwide survey of practice in the United Kingdom*, Paper presented to the International Public Relations Research Symposium. Bled: Pristop.
48. Watson, T., and Noble, P. (2014). *Evaluating public relations: a best practice guide to public relations planning, research and evaluation*. 3rd edition. London: Kogan Page.

49. World Health Organisation. (1948). Definition of health. Available at: <http://www.who.int/about/mission/en/> [10 September 2018].
50. Zolnierak, K. B., and Dimatteo, M. R. (2009). Physician communication and patient adherence to treatment: a meta-analysis. *Medical Care* 47(8), 826-834.