**External points of view in the PrEPUK News Corpus**

**Abstract**

This work examines the use of reported external points of view (EPVs), with a focus on quotations, in a corpus of U.K. news coverage of Pre-Exposure Prophylaxis (PrEP). Forms of external attribution have been shown to be a prominent feature of news discourse (e.g., Juillan, 2011; Semino and Short, 2004) and this has implications for public understanding of health issues. In the case of PrEP, the polarised views found in news coverage (Jaspal and Nerlich, 2017) have implications for the wider support and uptake of the treatment.

We report the findings of a corpus-assisted study of quotation, outlining patterns in the prevalence and distribution of quotes across the corpus according to frequently-cited sources and reporting verbs. Drawing on the Appraisal framework (White, 2012), we then provide a closer analysis of three articles covering the same news event to discuss the broader integration of external points of view and the ways in which journalists indicate their dialogistic association with the views they report.

We find that forms of speech presentation in quotations are relatively uniform, with journalists favouring — in particular — forms of the reporting verb *say*, or declining to use a reporting expression at all. This reflects a broader practice in which dialogistic association with quotations is largely unmarked. We find that journalists rely on the content of quotations for inscribed attitude, yet still invoke attitudes towards EPVs through the labelling of their sources, the reporting verbs they use and through the inclusion and positioning of EPVs in the article.

**Keywords:** PrEP, reported speech, news, appraisal, HIV

## 1. Introduction

Studies of news discourse have long established that a large proportion of what journalists report is "talk about talk" (Bell, 1991, p.60), taking the form of announcements, opinions, reactions, criticisms, etc. (Juillan, 2011). Developments towards interpretative journalism have meant that the journalist is increasingly becoming an analyst of news and may be more explicit about their stance on an issue while critically examining the perspectives of the commentators they report (Albæk, 2011; Brüggemann and Engesser, 2017). However, in newsrooms with fewer staff covering a greater range of topics, there is little time for independent research, and journalists rely on experts for assistance in interpreting and explaining the news (Albæk, 2011); this is especially pertinent in cases where there are concerns about health risks and the efficacy of treatments (Wagner, Gurr and Siemon, 2019). The prevalence of external points of view (EPVs) in health news has been demonstrated by Bossema et al. (2019), who found that 88.6% of health news articles in the U.K. and 69.7% of health news articles in the Netherlands contained at least one quote.

In this study, we focus on the U.K. news coverage of Pre-exposure prophylaxis (PrEP): a relatively new treatment designed to inhibit the transmission of HIV and AIDS. 'Pre-exposure prophylaxis' can refer to any biomedical HIV prevention intervention, though the term has come to commonly refer to forms of a specific daily pill that combines the reverse-transcriptase inhibitors emtricitabine and tenofovir. Clinical trials of the pill have consistently found PrEP to be >90% effective in reducing the risk of HIV infection (e.g., Grant et al., 2010; Molina et al., 2015; McCormack et al., 2016), yet there are reported concerns as to its impact on, for example, the sexual risk-taking of its users (Nagington and Sandset, 2020). In the U.K., the National Health Service (NHS) — specifically in England — has raised uncertainties about funding PrEP, caused delays and denied many access to this highly effective treatment. Such uncertainties have been challenged by charities such as the National Aids Trust and the hesitancy of the NHS has been criticised as a form of

"healthcare rationing" (Nagington and Sandset, 2020, p.177). Some factions of the U.K. media have been shown to regularly juxtapose "constructions of irresponsible PrEP users" with "expert opinion and reporting on scientific findings" (Young *et al*., 2020, p.7), contributing to the representation of PrEP as controversial and giving a platform to the contested view that taking PrEP encourages risky sexual behaviour. Given concerns about representations of the treatment, we explore the inclusion of EPVs in the U.K. news coverage of PrEP to consider the role of the media in representing different sources and different points of view to shape the public's understanding of the value and potential impact of PrEP.

Based on a corpus of 597 U.K. news articles related to PrEP from the period 2015–2019, we use a corpus-assisted approach to consider the prevalence and distribution of points of view presented in quotation marks, as the most explicit form of attributing content to external sources. We discuss the most frequently-cited sources and features of direct speech presentation, namely, the reporting verbs used. We then focus on a smaller set of articles to consider the broader ways in which EPVs are represented, examining the positioning of EPVs in the context of the article and in relation to other EPVs. Using the Appraisal framework (White, 2012), we also reflect on how journalists convey their own attitude towards these EPVs, variously invoking a sense of credibility or uncertainty.

## 2. External points of view (EPVs) in news discourse

Caldas-Coulthard (1994) argues that the representation of speech is "one of the rhetorical strategies used by the media discourse to implicate reliability" (p.303) and that "[b]y making explicit the strategies used by authors to represent what other people say, we can start to be aware of how language is used to manipulate and control information" (p.308). The very practice of quoting external points of view arguably attends to key news values (Bednarek, 2016), particularly in providing a mix of viewpoints from high-status individuals (Eliteness)

and ordinary people with lower status (Personalisation). In fact, Potts et al. (2015) demonstrate how a corpus-assisted collocation analysis of the reporting verb *say* facilitates a classification of quoted sources according to Eliteness and Personalisation. Quotes can be used to provide context, legitimation, explication, and balance, or they can discuss implications (Conrad, 1999). One advantage of using quotes, as Juillan (2011, p.767) asserts, is that "(e)xternal voices 'are allowed' to speak their minds much more loudly than journalists". In other words, journalists can choose to maintain some degree of distance from the assertions presented in their material if attributed to another source. Nevertheless, the practice "reflects who the reporter finds worth interviewing and what s/he [sic] finds relevant and reportable in the communicative event" (Juillan, 2011, p.768). In addition to choosing who is cited, journalists can also convey varying degrees of reliability or dis/endorsement (Bednarek, 2016) through the form in which the attributed content appears. As Caldas-Coulthard (1994) posits, the same words "can be interpreted and therefore retold differently according to different points of view" (p.295). For instance, the reporting verb *claim* carries associations of a statement being unsubstantiated. Journalists can invoke these (negative) associations by choosing *claim* over an alternative reporting verb such as, *say*, which does not have the same associations.

While studies of the form in which other people's words and thoughts are represented have a long-standing history in literary studies, the relevance to news discourse is also well-established. In fact, investigations of speech, writing and thought presentation (SW&TP) have often considered literary texts and news articles alongside a range of other text types (Semino and Short, 2004). Leech and Short (1981), for example, established a taxonomy for speech and thought presentation that has since been tested and developed on the basis of comprehensive corpus studies of fictional texts, newspaper reports and (auto)biographies (Semino and Short, 2004). It is from such models that we derive the terms 'direct speech', 'indirect speech', 'free indirect speech' etc., and the category distinctions relate to the amount of involvement of the speaker. Such distinctions are identifiable in formal linguistic

features such as the use of quotations marks and a change in deixis, and indicate to the reader whether the words and grammatical structures of the original utterance are presented.

In this study, we focus on quotation, identified through the use of single or double quotation marks. Quotability is reported to be important in how journalists select their sources (Conrad, 1999) and direct quotations are purported to serve three main functions in newspapers: i) to provide an incontrovertible fact; ii) to distance the reporter from what the source said; and iii) to provide a flavour of the newsmaker's own words (Bell, 1991). Quotations indicate an intent towards "objective knowledge, far removed from the subjectivity of the journalist" (Calsamiglia and López Ferrero, 2003, p.153), though due to the journalistic practices that reformulate and recontextualise external points of view (Caldas-Coulthard, 1994; Calsamiglia and López Ferrero, 2003), researchers have argued that the veracity of quotes is as contestable as other, more indirect forms of speech presentation. Nevertheless, explicitly marking the content as a quotation still formulates an impression that these are the words of the quoted source, "grammatically independent and semantically separate from the reporter's words" (Semino and Short, 2004, p.55). The absence of quotation marks embeds the original speaker's words, both grammatically and semantically, within the reporter's, introducing various degrees of partiality and reformulation. As such, we focus on external points of view that appear in quotation marks, since they formally indicate the external aspect of EPVs, i.e., distinct from the journalist's point of view — whatever the actual reality is.

Semino and Short (2004) cite the use of quotation marks and a reporting clause as indicative of the most direct forms of speech, writing and thought presentation. We therefore consider the presence and form of the reporting clause to be an important feature of quotation. The reporting verb and the attributed source are key components of the reporting clause. As such, we discuss the frequently-used verbs in reporting clauses and provide descriptive statistics of the categories of sources that appear in our data, e.g., medical and

health experts, health advocacy groups, politicians etc. The tendency to quote high-status individuals or ordinary members of the public, for instance, allows us to consider ideological preferences for what type of viewpoint is considered valuable. We report our procedures for identifying and categorising these aspects in the examples of quotation in our corpus of U.K. news coverage of PrEP in section 4.1.

### 3. Media coverage of PrEP

The role of the media in representing and constructing understandings of the HIV epidemic and its treatments, and in shaping policy, has long been the subject of critical analysis (see, for example: Epstein, 1996). Mass media communications are integral to a global, coordinated response to HIV/AIDS (Kitzinger, 1990; Li *et al.*, 2009; Asamoah *et al.*, 2017; Bago and Lompo, 2019) and the news media are shown to be an influential source for the public understanding of health communication in terms of health risks and treatment safety (Dixon and Clarke, 2012). In the case of PrEP, polarised press reporting (Jaspal and Nerlich, 2017) reads as ambivalent, providing readers with distinctly pro- and anti-PrEP positions. Studies of PrEP coverage in the U.K. news media, broadly covering the period 2012–2016, demonstrate these contrasting positions: Young et al. (2020) identified a public health imperative that described the need for PrEP, as well as an ir/responsible citizens narrative, which debated imagined PrEP users' capacity to use the drug effectively. Similarly, Mowlabocus (2019) observed a tension between those describing PrEP as a wonder drug and those denouncing it as a promiscuity pill. Finally, Jaspal and Nerlich (2017) reported both a hope and a risk representation. Jones and Collins (2020) also found that some publications in the U.K. press focused on the human benefits of PrEP, while others adopted a moralistic stance that described potential users as taking unnecessary risks. As a consequence, PrEP was claimed to be less deserving of funding in comparison with other treatments.

The scientific literature on PrEP is less ambivalent. There is a high degree of consensus from researchers (cf. Paz-Bailey *et al*., 2013; Grulich *et al*., 2018; Milam *et al*., 2019) and public health institutions including the WHO, the NHS in the U.K. and the Centers for Disease Control and Prevention (CDC) in the U.S., that PrEP "should be used in combination with other preventive interventions, including the use of condoms" (NICE, 2016). Given this apparent consensus, it is worth investigating the source of dissenting views to wider PrEP provision and how such views feature in the news coverage.

Potts et al. (2015) and Bednarek and Carr (2020a) have demonstrated how corpus linguistics can aid the analysis of news discourse for aspects such as news values, sources, stigma and responsibility, framing and more. For instance, Bednarek and Carr (2020a) suggest that direct quotes can be identified through a simple corpus search for all instances of (single or double) quotation marks. Alternatively, researchers can search for reporting expressions e.g., *said*, *told*. Either search would prioritise features that offer valuable insights yet different perspectives on speech, writing and thought presentation. We have chosen to focus on quotations, as indicated by the use of quotation marks, which then allows us to explore the range of reporting expressions around the quotation marks, including instances where actual reporting clauses are missing.

We examine how U.K. media sources included and attributed interpretations and perspectives on the impact(s) of PrEP to third parties. Our key research questions are as follows:

- What are the common features of reporting clauses? Specifically, what types of verbs are most commonly used and what categories of sources are most often cited?
- How do newspapers with different political affiliations draw on and incorporate external points of view into their coverage of PrEP?

We first provide quantitative observations of features of quotation in the data, before looking more closely at specific articles covering the same news story. Our combined analysis enabled us to consider how frequently different types of sources were included and identify indirect ways – in addition to explicit quotation – of presenting external points of view. We discuss how the forms and sequence of attributed materials reflect the ideological positions of the respective publications and journalists.

## 4. Methodology

In this section, we first introduce our data, which comprises news articles published in the U.K. concerned with PrEP, followed by our analytical approach. We provide details of our corpus-assisted approach to documenting features of quotation, including the categorisation scheme for reported sources. We then introduce the components of the Appraisal framework that informed our analysis of specific news articles.

### 4.1 The PrEPUK News corpus

We compiled our data — the PrEPUK News corpus — from the online database Nexis® using the search terms PrEP AND HIV OR prophylaxis OR Truvada OR Descovy to locate references to the preventative treatment by its common and trade names. In order to augment previous studies of U.K. news coverage of PrEP (Jaspal and Nerlich, 2017; Mowlabocus, 2019; Young *et al.*, 2020) we examined the period beginning 2015-01-01 and ending 2019-12-31. This allowed us to consider the coverage and impact of a legal battle between NHS England and the National Aids Trust which resulted in a High Court ruling in August 2016 that NHS England is responsible for funding PrEP provision in England. Our corpus comprised all U.K. publications, which includes (print and online versions of) national and regional newspapers, web-based publications, industry trade press and magazines. Following relevance checking and de-duplication, our corpus comprised 597 articles and 380 639 words. Table 1 shows the newspapers with the highest number of articles in our

corpus.[1] For succinctness, we have only listed those with more than twenty articles. As Table 1 shows, the three newspapers selected for our textual analysis provided the highest number of articles.

[INSERT TABLE 1 NEAR HERE]

## 4.2 Analytical approach

The analysis was conducted in three stages: 1) identification of quotes; 2) a corpus-assisted analysis of quotations including the identification of reporting verbs and source, the latter of which were classified using Carr's (2019) framework; and 3) a subsequent discourse analysis of a selection of texts to investigate the wider use of EPVs at the text level applying the Appraisal approach.

### 4.2.1 Identification of quotes

We conducted our corpus-assisted analysis in *#LancsBox* (Brezina, Timperley and McEnery, 2018) and used the query /".*/ip and /'.*/ip to identify tokens beginning with a single or double quotation mark, followed by a string of text. This identified the beginning of each quotation in the data, avoiding the use of apostrophes (as in clitics or to indicate possession). This also meant that we did not double up on our frequency counts by counting both opening and closing quotation marks. From the results, we excluded uses of quotation marks to report labels (e.g., "the 'Ready, Set, PrEP' program"), as well as metalinguistic comments to indicate, for example, the figurative use of words (such as "the virus 'hides' from the immune system").

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[1] We use the collective title to refer to subsidiary editions of publications i.e., *Daily Mail* encompasses the *Daily Mail*, *Mail Online* and *The Mail on Sunday*.

4.2.2 Identification of reporting verbs and source

After identifying the quotations with the method described above, our analysis of quotations focused on two aspects: reporting verb and source. In our definition, reporting verbs are any verb that appears in the reporting clause that precedes or follows a quote. However, Semino and Short (2004) observed a tendency, which they found is particularly typical of tabloid newspapers, to report lengthy quotations as a series of distinct paragraphs. In these instances, the first paragraph in the series is likely to have a reporting clause but while subsequent paragraphs have their own quotation marks, they do not have an additional reporting clause. For their purposes of annotating speech, writing, and thought presentation, this constituted a distinction between Direct Speech (since the first paragraph has a reporting clause) and Free Direct speech (in subsequent paragraphs that have no reporting clause). Furthermore, there can be instances of a reporting clause where the quotation is not the grammatical object of the verb as in Example (1) below.

(1)  Vines is hopeful, though: "I believe the international donors will.." (The Independent_2017-08-21).

After identifying the reporting verbs or their absence, we categorised the sources the quotes originate from according to the coding scheme reported by the Sydney Corpus Lab (Carr, 2019), who developed their framework for the investigation of diabetes in Australian news coverage. The full description of the categories are provided in Carr (2019) and also summarised in Table 2.

[INSERT TABLE 2 NEAR HERE]

The source of the quotation was identified by referring to the immediate co-text of the quotation and the collated alternative labels (e.g., *NAT chief executive Deborah Gold*, *she*, *Gold*) under a single label for that referent (i.e., Deborah Gold). We only recorded the source if the identification of that source was contiguous with the quotation and we applied the

following strict criteria: 1) the source was identified in the previous/next sentence (Example 2); 2) the quotation was replicated elsewhere in the article, with the source; or 3) a quotation appeared as part of an uninterrupted series for which the source had already been identified (Example 3).

(2) Deborah Gold, NAT chief executive, said "This is fantastic news". She added: "Over 4,000 people very year […]" (Telegraph_2016-08-02)

(3) Chief investigator professor Sheena McCormack, from the Medical Research Council's Clinical Trials Unit at University College London, said: "These results are extremely exciting and show PrEP is highly effective at preventing HIV infection in the real world.

"Concerns that PrEP would not work so well in the real world were unfounded.

"These results show there is a need for PrEP, and offer hope of reversing the epidemic among men who have sex with men in this country. (Daily Mail_2015-02-24)

For any quotations that did not meet these criteria, we recorded the source as 'None' (i.e., unidentified).

4.2.3 Identification of similarities and differences in reporting: The Appraisal approach

In order to conduct a contextualised and more detailed investigation of the integration of external points of view at the text-level, we selected three articles covering the same news event from the three most prolific newspapers in our corpus: the *Daily Mail*, *The Independent* and *The Guardian*. Each article comprised a minimum 500 words and at least 10 instances of direct quotation. While these articles did not constitute the highest number of quotations, they did provide the opportunity to examine the reporting of a single news event across

different formats and political orientations (Smith, 2017). *The Guardian* is one of the U.K.'s so-called quality newspapers and is associated with a centre-left political position; *The Independent* began as a quality broadsheet but since 2005 has been published in tabloid format and represents a centrist position; the *Daily Mail* is a tabloid newspaper that holds a conservative political orientation. The news story covered in each publication is based on the results of a survey of PrEP uptake and community-level changes in condom use in Australia (Holt et al., 2018), offering an illustrative case study of how the impact of PrEP on users' engagement in high-risk sexual behaviours is reported in the news.

Our analysis of these three articles, focusing on the use of EPVs, draws on the Appraisal-based approach outlined by White (2012) and applied to news comments by Cavasso and Taboada (2021). The Appraisal approach supports analysts in exposing journalists' strategies in favouring "particular value positions while employing a relatively impersonal style in which attitudinal evaluations and other potentially contentious meanings are largely confined to material attributed to quoted sources" (White, 2012, p.57). In this model, we can distinguish between 'inscribed' attitude (indicated in explicitly attitudinal lexis) and 'invoked' attitude, where attitudinal value "is activated indirectly via implication, association or optional entailments" (White, 2012, p.59). Within the category of invoked attitude, there is further distinction between 'provocation' and 'evocation', which White (2012) demonstrates in relation to the labelling of a source. Evocation relies on the absence of explicit evaluations (e.g., the Prime Minister; Professor Noel Gill, head of the STI & HIV Department at Public Health England) and therefore, "the attitudinal potential of such formulations is entirely contingent on co-textual conditioning and the beliefs and attitudes the reader brings to the text" (White, 2012, p.60). Source descriptors that provoke attitudinal assessments contain evaluative terms such as "<u>leading</u> experts in the field", often achieved through quantification i.e., "<u>most</u> doctors". In terms of engagement, we can conceptualise the inclusion of EPVs as a dialogue between the reporter and the source. This dialogistic association (White, 2012) exposes the ways in which reporters express degrees of certainty,

subjectivity and support in relation to propositions expressed in those EPVs. This can variously indicate to the reader that what is reported is a matter of opinion, for example, allowing for the possibility of an alternative point of view or as an accepted truth. This concept of the dialogistic association allows us to articulate why the verb *say* offers a neutral or unmarked position, in that it does not state anything about the association between reporter and source; why *claim* indicates a stepping back or distancing; and why *demonstrate* indicates an associating or endorsing position (White, 2012). We deploy these aspects of the Appraisal framework in our examination of our three selected articles to demonstrate how EPVs function in the context of the articles.

## 5. Findings

Our corpus query resulted in 4456 instances of direct quotation. Overall, we found 7.46 quotes per article, ranging from 0–60 (SD=7.82). Table 3 shows the newspapers in the corpus with a minimum of twenty articles, in order of the highest proportion of quotes per article. Among the national newspapers, the number of quotes was broadly proportional to the number of articles, in that quotations from the *Daily Mail* accounted for 23.2% of all quotations and articles from the *Daily Mail* made up 21.6% of the corpus (compare Tables 1 and 3).

[INSERT TABLE 3 NEAR HERE]

**5.1 Reporting verbs**

The results yielded to 153 different reporting verb lemmas framing quotations, the most frequent of which are listed in Table 4. Ten verb lemmas, namely, *say*, *add*, *tell*, *describe*, *call*, *claim*, *warn*, *hail*, *write*, *explain* accounted for 80.5% of instances when a reporting verb was used (totalling 2634 instances). Consistent with previous investigations of reporting verbs (e.g., Caldas-Coulthard, 1994; Potts *et al.*, 2015; Bednarek and Carr, 2020a), forms of

*say* were overwhelmingly favoured in this data, accounting for 58.4% of instances when a reporting verb was used (34.5% of all quotations). In contrast with *say* and *tell*, which Bednarek (2016, p.32) cites as examples of the "mere act of saying", *claim* (which indicates subjectivity and a degree of uncertainty), *warn* (which indicates concern and advice-giving), and *hail* (which indicates acclaim) are more evaluative. However, these are each used in less than 1% of all quotations. The frequency of *add* reiterates that in our corpus, journalists provided extended quotations from given sources. The use of this reporting verb potentially indicates where journalists have included elaboration and qualification from their sources. On the other hand, this also suggests that fewer sources are prioritised over having shorter quotations from a wider range of sources. The inclusion of fewer sources may be the result of practical considerations, in that certain individuals may be more willing and capable of commenting on an issue and journalists may not have the resources to pursue multiple sources. Nevertheless, the reliance upon a smaller number of sources has consequences for the range of perspectives that are represented.

[INSERT TABLE 4 NEAR HERE]

Our investigation of reporting verbs highlighted the prevalence of the practice demonstrated in 4.2.2 (Example 3) above: a lengthier quotation extending across a series of short paragraphs, with a reporting clause in the first paragraph only while adding quotation marks for each paragraph. On the one hand, the positioning of these paragraphs suggests continuity in that the source identified in the first paragraph can be carried over to the quotation paragraphs that immediately follow it. On the other hand, the very separation into distinct paragraphs may indicate some discontinuity between one paragraph and the next. That is, what might be presented as continuous speech in the article may not have been delivered in this way by the original source. For our analytical purposes, this quotation

practice offered some account for the finding that 1824 (40.9%) quotations had no reporting verb. Consistent with Semino and Short (2004) however, we found that these distinct quotation paragraphs with no reporting clause would only come after a quotation that did have a reporting clause, which typically included a source and a reporting verb.

Another regular feature of the corpus that accounted for the absence of a reporting verb was the use of 'q forms' (Semino and Short, 2004) in headlines, integrated into the 'Narration' of the text as follows:

(4) NHS funding cuts 'forcing people to buy medicine through Facebook' (The Independent_2016-09-15)

Quotations used in the headline would typically not include an attribution, but the quotation might also appear in the main body of the article, with the source. This practice has been observed in previous studies (e.g., Short et al., 2002), where headlines feature punchier summaries of longer utterances, indicating that "the conventional expectation of faithful reproduction associated with [free direct speech] in factual reporting often appears to be suspended" (Semino and Short, 2004, p.95). If we consider the significance of the headline — which may be the only part a reader sees on a news website or distributed through social media — in terms of its capacity to persuade a reader to click on the article and/or read further, they will tend to see unattributed quotations. This suggests that indicating that content is a quotation via quotation marks is sufficient in conveying some degree of authority or credibility, regardless of the source.

## 5.2 Sources

Three groups — 'Health advocacy groups', 'Politicians, government officials and government initiatives' and 'Medical and health experts' — accounted for 66.0% of all quoted sources, indicating that journalists favoured sources demonstrating expertise (either in terms of involvement with campaign groups or professional training) or a capacity to negotiate or

enforce policy (see Table 5 for details). The remaining groups attest to a breadth of personal (in 'Lay people'), scientific ('Research organisations') and professional ('Professional experts') expertise, along with the status afforded to those with a far-reaching platform ('Celebrity'), however, these were much less frequent.

Like Carr (2019), we found a small number of sources that did not fit the previously established categories, hence necessitating a new category that we called 'Other'. The most frequent referent in this category was critics, which, arguably, could be considered a kind of advocate defined by a political or ideological position. However, since we could not establish the basis of their criticism – i.e., where it was a health issue, a political issue, or some other ideology – the term did not fit any other category. Our source category findings are comparable with those of Bednarek and Carr (2020b), who investigated sources reported in diabetes coverage in Australian newspapers and found a high proportion of 'medical health experts' and 'health advocacy groups'.[2] This allows us to begin to see trends that may extend across (heath) news coverage.

[INSERT TABLE 5 NEAR HERE]

The largest category for sources in the PrEPUK News corpus was 'Health advocacy groups', which also included the three most frequently cited individual sources: Deborah Gold (152 instances), Ian Green (121) and Michael Brady (120). As representatives of charities specifically concerned with tackling HIV/AIDS (NAT, Terrence Higgins Trust), their prominence in the data arguably reflects the extent to which PrEP in the U.K. has been a campaign issue. In a study of genetics articles, Conrad (1999) found that a greater

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[2] Bednarek and Carr (2020b) report a much higher proportion of 'research findings and announcements', though they identified examples through (non-lemmatised) common terms associated with reporting clauses (*said*, *says*, *according to*, *say*) rather than quotations, and excluded pronouns.

percentage of activists and advocates were quoted in articles on homosexuality, compared with those on alcoholism or mental illness, highlighting the politicised nature of issues to do with sexuality and health. The debates around PrEP, and the news coverage of ongoing struggles for wider provision undoubtedly have significance for the health outcomes of the members of the LGBTQ+ community. We might expect that representatives of advocacy groups are also (more) willing to speak on an issue, are cognisant of the wider debates, and have a clear ideological position, all of which make them a more appealing source for journalists.

The significance of the legal challenge brought by the National Aids Trust to NHS England was indicated in that the most frequently cited source in the category 'Politicians, government officials and government initiatives' was NHS England (81 instances) and in the category 'Professional experts', Justice Green (75 instances): the presiding judge over the High Court. It is worth noting, however, that 65 of the 75 references to Justice Green occurred in the span of two days in August 2016, when the news of the legal proceedings was covered. In contrast, the consistent contribution of individuals such as Deborah Gold, Ian Green and Michael Brady across a large number of articles and across the timespan of the corpus attends to the news value of Consonance (Bendarek, 2016), generating familiarity and helping to affirm their status as experts for those who follow the issue.

There were 348 instances of quotation that had no direct source, though the source was recovered in 156 instances by referring to the co-text according to the parameters outlined in section 4.2.2. This left 192 instances where no attributed source could be identified. Examples 5–7 provide illustrations of how these functioned:

(5) Once-a-day pill 'DOES prevent HIV in the real world': PrEP drugs 'are effective in protecting healthy gay men from infection' (Daily Mail_2015-11-16)

(6) The NHS will come under renewed pressure to provide what is being described as a "miracle" HIV prevention (The Independent_2015-06-26)

(7) it's unfair to have that attitude of 'just take personal responsibility and always wear condoms' towards gay men. (The Independent_2015-08-04)

Example (5) demonstrates the use of 'q forms' (Semino and Short, 2004) in headlines, however a source for this content has not been identified either right after the title or later in the article. Example (6) demonstrates the use of the passive voice, which does not require an attributed source and references to PrEP being described as "highly effective" or a "game changer" were frequently unattributed. Example (7) demonstrates a reference to a point of view that is presented as a prototypical and/or plausible quotation to be contested, but nevertheless is not cited as a specific utterance attributed to an individual.

In the next stage of analysis, we draw on the Appraisal framework (White, 2012) to uncover invoked attitudes, examining the integration of EPVs in the context of full articles and investigating the ways in which authors position themselves in relation to those EPVs.

## 5.3 EPVs in context

Our text-based analysis focused on three articles published by the three news outlets (see titles, authors, and outlets below) that contributed the largest number of articles to the PrEPUK News corpus (see Table 1 above):

1. Game-changing HIV drug PrEP has led to a 'striking' fall in the number of gay and bisexual men using condoms for sex (Flanagan, 2018, *Daily Mail*)
2. HIV 'game-changer' drug linked with fall in condom use among gay men (Matthews-King, 2018; *The Independent*)
3. Rapid rise in anti-HIV PrEP pills linked to drop in condom use (Boseley, 2018, *The Guardian*).

Each of these articles reported the findings of a study published on 2018-06-06 in *The Lancet HIV*, in which the study authors reported that "[a] rapid increase in PrEP use by gay and bisexual men in Melbourne and Sydney was accompanied by an equally rapid decrease

in consistent condom use" (Holt *et al*. 2018, p.448). What follows is our investigation into each article's treatment of the study findings and also the inclusion of other EPVs brought into the discussion.

### 5.3.1 *Daily Mail*

The author of this article largely relies on the words of their quoted sources to provoke an attitude, leaving quotations broadly unmarked for dialogistic association; that is, there is little to indicate the journalist's stance towards the quoted material. The headline includes the evaluation "a 'striking' fall", in the style of a 'Narrative with quotation element' (Semino and Short, 2004, p.55), without an initial identification of the source. The quoted evaluative term 'striking' appears three times before the identity of the source is revealed roughly 300 words into the 1165-word text:

> (8) "Professor Martin Holt, study author, from the University of New South Wales, said.."

The journalist reports study findings and a direct quote from Public Health England, which are also unmarked for features of dialogistic association. The reporting verb *warn* is used in the reporting clause that prefaces a series of quotes from "Dr Nittaya Phanuphak and Dr Praphan Phanuphak from PREVENTION, the Thai Red Cross Research Centre in Bangkok, in Thailand". This particular reporting verb shows the journalist associating with this EPV, in characterising it as advice that should be heeded and the expansive labels for the sources add to their legitimacy and status as experts.

The author provokes an attitude of concern towards PrEP in explicitly labelling the treatment as controversial in the third paragraph of the article:

> (9) Critics have repeatedly blasted the controversial drug, which is 90 per cent effective at preventing HIV infection when taken daily, as a 'promiscuity pill'.

Two contrasting positions — which have been documented more widely in the U.K. press coverage (Jaspal and Nerlich, 2017; Mowlabocus, 2019; Young *et al*., 2020) — are

contained within this sentence: it reports PrEP efficacy, but also establishes concerns about promiscuity. This sentence, therefore, succinctly demonstrates why the author has determined PrEP to be controversial. However, the dissenting voice here is attributed to critics, an indeterminate group who are nonetheless quoted as using the phrase 'promiscuity pill', and the quantification and the intensification of the reporting verb phrase "repeatedly blasted" demonstrates further provocation.

The anti-PrEP perspective is consistently attributed to similarly indeterminate groups: "other campaigners" are reportedly "worried" that PrEP "will fuel a rise in sexually transmitted infections"; "Experts" are "worried" about drug resistance; and "campaigners" have "argued" that holding NHS England responsible for funding PrEP would "bankrupt the NHS". In each case, there is no further specification of who these groups are and the indirect reporting style makes it difficult to discern any content that might have come directly from them (the direct speech presentation of 'promiscuity pill' being the exception). This indeterminacy is apparent in one instance of a pro-PrEP EPV, as "leading medical organisations and MPs" are reported as saying the High Court ruling "was 'ethical' and would save many lives", however, even this offers a specification of the sources' expertise and professional standing.

This article arguably offers a balance in presenting both pro- and anti-PrEP EPVs. However, the names, professional titles, and affiliations used to introduce the sources that highlight what needs to be done to optimise PrEP provision and efficacy provide a sense of status and expertise. In contrast, the sources providing EPVs that are critical of PrEP are not individuated ('campaigners') and when directly quoted, the content appears as single words or terms e.g., 'promiscuity pill'. This lack of specificity and detail inhibits the readers' capacity to critically consider what has been said and by whom, representing a strategy that can be deployed by journalists to undermine and disassociate from such EPVs. The contrast in specificity arguably evokes the view that the pro-EPVs have a greater legitimacy compared with anti-PrEP EPVs.

### 5.3.2 *The Independent*

The article from *The Independent* also relies on the content of quoted EPVs to provoke particular attitudes towards PrEP and the sources for this article are almost exclusively the study authors. Presented as either the researcher(s) or the study itself, the source labels include "Professor Holt", "Professor Martin Holt at the University of New South Wales, Sydney, who led the research published in the *Lancet HIV* journal", "experts", "Australian researchers", "it" (i.e., the study) and "Analysis". The only EPV not attributed to this group is an instance of what "one London clinic reported", presented as indirect speech. While the use of the reporting verbs *say* and *add* provide minimal evaluation — i.e., they are unmarked for dialogistic association — referring to what research studies *found* is associating, because of the factivity of the proposition and the suggestion that what is reported was a truth to be discovered.

The author uses *warn* in the byline when referring to the impact of PrEP being undermined by users "eschewing protection". This choice of reporting verb is characteristic of the more cautionary position expressed throughout the article. Example 10 demonstrates the means by which the author of the article mitigates more affirmative statements:

(10)    The drug kills off the virus before it can become established after transmission from an infected partner, but its effectiveness is lessened if it is not taken consistently and even daily use is not 100 per cent effective.

The use of *but* to introduce contradictory aspects and the use of *even* to outline extreme conditions and circumstances ("even daily use", "even men not taking the treatment") could be said to provoke scepticism about the attached propositions. Ultimately, this mitigates both confidence in the treatment and the potentially damaging effects of PrEP use (e.g., "but […] it is still too early to know the long term impact"). This uncertainty arguably originates in the EPVs themselves; in direct quotations from the study authors, we

can see the hesitancy expressed in the use of modal verbs *might* and *may*, which is discordant with the more assertive and unmitigated proposition in the headline that PrEP is linked with a "fall in condom use among gay men". In the next section on *The Guardian* article, there is also a discord between headline and article text, highlighting a potential difference in the ways that attitude is conveyed in different parts of the text.

### 5.3.3 *The Guardian*

The headline reporting a "link" between a rise in PrEP use and a drop in rates of condom use is unmarked for dialogic association, however the byline of this article swiftly provokes a lack of certainty in the use of the modal verb *may* and the reporting clause "study suggests". The use of *suggests* contrasts with *found*, as discussed in relation to the article from *The Independent*, in that it is not predicated on an established fact. Indeed, the use of *would* in relation to critical views of PrEP, along with four instances of *may*, provoke a counterfactual conditional perspective, "It would be contributing to the behaviour".

However, while the author provokes a lack of certainty with respect to the implications of the research, they provoke authority in and associated with the report and its authors, as demonstrated in the reporting clause "a major study has shown". The article features quotations from Martin Holt, Michael Brady and Deborah Gold and while unmarked for dialogistic association (using *said* for each reporting clause), the extended noun phrases that list their titles and affiliations create legitimacy for their points of view. The author dedicates 356 words of this 708-word article to these EPVs, which are interrupted only by the reporting clauses that introduce them and which conclude this article. The inclusion of Holt is not conspicuous as an editorial decision, since he led the actual research being reported, nor is the inclusion of Brady or Gold, who we have shown are frequently cited across the corpus. Nevertheless, the inclusion of and space given to these known advocates of PrEP is, arguably, an indication of the author's attitude towards PrEP. Through the words

of these sources, the author problematises the idea of a link between PrEP use and declining condom use — despite this link being established in the headline.

## 6.   Summary and Discussion

News coverage of PrEP, in the U.K. and in other contexts, has been shown to be polarised (Jaspal and Nerlich, 2017). In the PrEPUK News corpus discussed here, we found representations of pro- and anti-PrEP points of view. The topic therefore offers potential for investigating contrasting points of view and examining the attitudinal positions journalists take in relation to those dichotomous perspectives. Yet, consistent with previous studies, we found an overwhelming preference for the use of the reporting verbs *say*, *add* and *tell*, which are unmarked for dialogistic association (term defined by White, 2012). Furthermore, while we can expect reporting verbs and the labelling of sources to indicate evaluation from the journalist, we have shown that quotations often do not have a reporting clause at all. Nevertheless, the labelling of sources remains an important vehicle for conveying attitude and along with the repetition and sequencing of quotes, allows journalists to inscribe and invoke attitudes towards EPVs.

In our closer textual analysis of three articles from different major news publications in the U.K., we saw differences in the extent to which the contrasting views of PrEP were included. These practices were broadly consistent with the associated political ideologies for each publication. *The Guardian* offered an uncontested view of PrEP efficacy, but uncertainty in terms of PrEP's impact on safe sex practices. This article incorporated a notable amount of content from PrEP activists, articulating perspectives that advocate for progress and equal rights in relation to sexual health provision, consistent with its centre-left position. The article in *The Independent* was similarly uncertain about the link between a rise in PrEP use and a decrease in condom use, but evidence of any critical evaluation largely originated with the study report, rather than being presented in the journalist's commentary.

The *Daily Mail* provided more content relating to a critical view of PrEP than the other articles, reflecting a more conservative position in relation to sexual practices and access to state-funded healthcare. Although the article featured both pro- and anti-PrEP perspectives, these were reported with contrasting degrees of specificity and we have argued that this has implications for their credibility.

The inclusion of contrasting EPVs is one way in which journalists can convey a sense of balance, yet Dixon and Clarke (2012) highlight the problem of giving contrasting views an equal footing when there is disparity in the body of evidence for those contrasting views (i.e., false balance). Indeed, Card et al. (2019, p.1883) argue that in giving dissenting voices to PrEP an out-sized focus, "news media coverage of PrEP provides subtle reinforcement of arguments that do not necessarily represent informed scientific consensus". The different approaches favoured by academics and journalists may highlight a tension between scientific writing and news discourse, as journalists may favour a focus on the clash between contrarians and advocates at the expense of "more relevant debates" (Brüggemann and Engesser, 2017, p.66). Furthermore, Merkley (2020, p.543) finds that "segments of the public are often motivated to resist consensus messages when they conflict with their values and ideologies", suggesting that there is still value in presenting oppositional views, if readers are to critically engage with those perspectives.

## 7. Limitations and Conclusion

Our study has several limitations. First, while our study offers a view of the broad patterns of quotation across the data alongside a closer examination of select articles at the text-level, there are still aspects of the data and of speech, writing and thought presentation that we were not able to discuss. In the first instance, our corpus query identified only explicit types of quotation, marked by the use of quotation marks. Identifying and quantifying other, more

indirect forms is more complicated for corpus-informed analyses, since they are not always marked by lexical or grammatical features, hence provide difficulties for search terms.

Secondly, many of our articles included hyperlinked material, representing an emergent feature of the digital news platform. This phenomenon offers another way for journalists to incorporate EPVs and encourage readers to critically engage with the source materials themselves, though again, may not be formally (i.e., grammatically and syntactically) marked. What we were able to capture by taking this approach is the range of reporting verbs that were used in direct speech presentation. Researchers interested in studies of quotation and more indirect forms of speech can benefit from our finding that the majority of instances used a very restricted set of reporting verbs. However, it is also important to be aware that quotation often lacked a reporting clause and that an investigation driven by reporting verbs would miss these.

Thirdly, we did not have the space to discuss differences in the selection of sources according to newspapers, which can also reflect editorial preferences. Broadly speaking, we found a preference for quoting medical experts, politicians and representatives of advocacy groups. This arguably reflects the challenges of putting into practice advances in medical and health research, as a question of governance and of political and social change. An examination of how particular types of sources are favoured by different publications and at different points in the timeline could provide insights into how the debates around PrEP shift over time, in relation to medical developments and advances in provision. Our findings in relation to the most frequent types of sources quoted in the data is consistent with previous studies (e.g., Bednarek and Carr, 2020b) and our application of the source taxonomy developed by the Sydney Corpus Lab (Carr, 2019) helps to build an evidence-base for the types of sources used in health and other news coverage across studies, enabling us to contextualise the patterns observed with respect to this particular corpus and topic.

In conclusion, our corpus-assisted approach has enabled us to report patterns for quotation in this collection of news articles, which revealed that there is minimal evaluation in the features of reporting clauses. Journalists most frequently cited medical experts, politicians and health campaigners to represent different perspectives on the issue of PrEP provision. Our analysis of articles at the text-level allowed us to identify strategies through which journalists more implicitly convey evaluation towards their sources and thereby present certain points of view as more credible than other. In exposing some of the more subtle ways in which journalists indicate their dialogistic association with the EPVs they incorporate, we can equip readers with the critical skills to evaluate the quality of those sources.

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**Tables**

**Table 1.** Newspapers with the highest number of articles in the PrEPUK News corpus (newspapers with a minimum 20 articles only).

| Publication | Number of articles | Percentage of articles in the corpus | Number of words | Percentage of words in the corpus |
|---|---|---|---|---|
| *Daily Mail* | 95 | 15.9% | 82 028 | 21.6% |
| *The Independent* | 56 | 9.4% | 44 446 | 11.7% |
| *The Guardian* | 47 | 7.9% | 41 242 | 10.8% |
| *The Times* | 38 | 6.4% | 19 141 | 5.0% |
| *Pink News* | 36 | 6.0% | 21 384 | 5.6% |
| *The Belfast Telegraph* | 23 | 3.9% | 13 374 | 3.5% |
| *The Daily Mirror* | 23 | 3.9% | 12 412 | 3.3% |
| *The Evening Standard* | 21 | 3.5% | 8 732 | 2.3% |
| *The Daily Telegraph* | 21 | 3.5% | 15 490 | 4.1% |
| *Total* | **360** | **60.3%** | **258 249** | **67.8%** |

**Table 2.** Overview of the categories used to group sources.

| Category label | Summary | Examples |
|---|---|---|
| Medical and health experts | Health professionals and practitioners, whether individuated, collectivised experts or institutional bodies | Jonathan Fielden, doctors, The |

| | | Healthpac Medical Centre |
|---|---|---|
| Professional experts | Sources cited for their non-medical professional expertise, including professional organisations | Justice Green, firefighters |
| Health advocacy groups | Charities and their representatives, as well as advocacy groups which conduct research | National Aids Trust, Deborah Gold, campaigner |
| Research organisations | Individuals in research centres and institutes, including those involved in health research. Distinct from research department within hospitals or universities, which are classified with Medical and health experts | Martin Holt, researchers, Microbicide Trials Network (MTN) |
| Politicians, government officials and government initiatives | Individual politicians, spokespeople and government departments as well as government advisory groups and initiatives | Public Health England, Matt Hancock, Cancer Drugs Fund |
| Research findings and announcements | Researchers introduced within journal reports, survey results and direct citations of research | Proud study, report, authors |
| Lay people | Ordinary people who do not speak in an official capacity | David, people, Twitter user |
| Celebrity | People who are famous or well-known and not cited in a professional capacity | Elton John, Gareth Thomas |
| Business/company | Named business companies and their representatives | Gilead Sciences Inc., spokesperson |
| Media outlet or story | References to media outlets, texts and journalists | Daily Mail, Iain Dale |
| Guidelines and information sheets | Documents and records that provide instruction | Policy, guidelines |

**Table 3.** Number of quotes in newspapers with a minimum of 20 articles.

| Publication | Articles | Quotes | Quotes as a percentage of all quotations in the corpus | Quotes per Article |
|---|---|---|---|---|
| *Belfast Telegraph* | 23 | 281 | 6.3% | 12.22 |
| *Daily Mail* | 95 | 1034 | 23.2% | 10.88 |
| *Pink News* | 36 | 379 | 8.5% | 10.53 |
| *The Guardian* | 47 | 399 | 9.0% | 8.49 |
| *Daily Telegraph* | 21 | 172 | 3.9% | 8.19 |

| | | | | |
|---|---|---|---|---|
| *i-Independent* | 14 | 109 | 2.4% | 7.79 |
| *Daily Mirror* | 23 | 177 | 4.0% | 7.70 |
| *The Independent* | 56 | 406 | 9.1% | 7.25 |
| *Evening Standard* | 21 | 112 | 2.5% | 5.33 |
| *The Times* | 38 | 185 | 4.2% | 4.87 |
| *The Pharma Letter* | 20 | 68 | 1.5% | 3.40 |
| *Total* | **394** | **3322** | **74.6%** | **8.43** |

**Table 4.** Most frequent reporting verbs (lemmas) occurring at least 20 times.

| Reporting verb lemma | Occurrences | Occurrences as a percentage of total number of reporting verbs |
|---|---|---|
| *say* | 1539 | 58.4% |
| *add* | 184 | 7.0% |
| *tell* | 136 | 5.2% |
| *describe* | 76 | 2.9% |
| *call* | 42 | 1.6% |
| *claim* | 33 | 1.3% |
| *warn* | 32 | 1.2% |
| *hail* | 28 | 1.1% |
| *write* | 27 | 1.0% |
| *explain* | 23 | 0.9% |
| *argue* | 21 | 0.8% |
| *ask* | 20 | 0.8% |
| *Total* | **2161** | **82.0%** |

**Table 5.** Frequency of source types by category.

| Category | Occurrences from sources in this category | Occurrences as a percentage of all quotations |
|---|---|---|
| Health advocacy groups | 1191 | 26.7% |
| Politicians, government officials and government initiatives | 897 | 20.1% |
| Medical and health experts | 855 | 19.2% |
| Lay people | 373 | 8.4% |
| Research organisations | 273 | 6.1% |

| | | |
|---|---|---|
| Celebrity | 229 | 5.1% |
| Professional experts | 150 | 3.4% |
| Media outlet or story | 98 | 2.2% |
| Research findings and announcements | 75 | 1.7% |
| Business/company | 59 | 1.3% |
| Other | 50 | 1.1% |
| Guideline and information sheets | 14 | 0.3% |
| None | 192 | 4.3% |
| *Total* | **4456** | **100%** |