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Emotional communication with older people: A cross-sectional study of home care.

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Abstract

The aim of this study was to explore the influence of characteristics of nurses and older people on emotional communication in home care settings. A generalized linear mixed model was used to analyze 188 audio-recorded home care visits coded with Verona Coding Definitions of Emotional Sequences (VR-CoDES). The results show that most emotional distress was expressed by older females or with female nurses. The elicitation of an expression of emotional distress was influenced by the nurses' native language and profession. Older women aged 65-84 years were given the most space for emotional expression. It is concluded that emotional communication was primarily influenced by the nurses' and older people's sexes with an impact on the frequency of expressions of and responses to emotional distress. Expressions of emotional distress by older males were less common and may be at risk of being missed in communication. The results have implications for students' and health professionals' education in increasing their knowledge of and attentiveness to the impacts of their and others' characteristics and stereotypes on emotional communication.

Keywords: communication; emotional distress; home care services; nurses; older people; Sweden.

1. INTRODUCTION

In home care visits, older people reveal essential information about their wellbeing and health, such as worries and needs (Kristensen et al., 2017; Sundler, Högländer, Eklund, Eide & Holmström, 2017). These issues can then be listened to and solved by the nursing staff (Högländer, Eklund, Eide, Holmström & Sundler, 2017). In home care settings, expressions of older people's emotional distress are common but often implicitly expressed, which can make them difficult to identify (Hafskjold, Sundling, van Dulmen & Eide, 2017; Sundler et al., 2017). Older people's abilities to handle their emotions can become an obstacle and can affect their everyday lives (Pejner, Ziegert & Kihlgren, 2012) and health (Suri & Gross, 2012). Supporting patients' emotional needs is an important feature of nurses' professional competence (Pejner et al., 2012). However, providing emotional support can be challenging and judging the nature of an emotion can be difficult (Street, Makoul, Arora & Epstein, 2009).

Home care is a female-dominated sector (Lyon & Glucksmann, 2008), and many older people receiving home care are also female (Hellström, Persson & Hallberg, 2004). In Sweden, equity in healthcare is emphasized in the Healthcare Act (SFS 1982:763), yet there is divergence among healthcare professionals on acknowledging inequity in healthcare settings (Höglund, Carlsson, Holmström, Lännerström & Kaminsky, 2018). Nurses working in home care settings also care for older populations remaining in their homes to an increasing extent later in life. This is due to the Swedish welfare system, which grants support and help for older people who remain in their own homes (Social Services Act, SFS 2001:453). With increasing age both physical and cognitive limitations occur with an impact on older people's needs and health experiences. Home care tends to focus on physical abilities and basic needs (Turjamaa, Hartikainen & Pietilä, 2013) with tasks to be performed (Sundler et al., 2017) while older people's social and psychological needs are at risk of being overlooked. Hence, older people sometimes note feeling ignored or not listened to (Lagacé, Tanguay, Lavallée, Laplante &

Robichaud, 2012), underscoring the importance of one being acknowledged as a person (Woolhead et al., 2006).

Person-centered care, with its holistic view of the patient as a unique person (McCormack, 2003), is currently considered a gold standard in healthcare. The approach involves understanding and acknowledging a person and his/her life as a whole based on his/her beliefs, values and needs (McCormack, 2003). Person-centered communication with older people can therefore be desirable, but risks being influenced by stereotyping (Storlie, 2015). A consequence of stereotyping older people is objectification (e.g., ageism), which may lead to a categorization of what it means to be old and a generalization of what old people should be like (McGuire, Klein & Chen, 2008). Hence, the older person is no longer viewed as a unique person.

Previous studies have found that age and sex can influence emotional communication. For example, older people sometimes experience more emotional control, lower intensity emotions and, overall, fewer emotions compared to younger people (Gross et al., 1997). However, age-related differences in emotional experiences vary depending on the person or type of emotional state involved (Isaacowitz, Livingstone & Castro, 2017). Older females have also been found to experience more disabilities (Newman & Brach, 2001) and to more frequently express a loss of appetite; a lack of sleep and feelings of nervousness, anxiousness and loneliness (Hellström & Hallberg, 2001). Males appear to seek help less often than females, which may be the result of socially constructed gender norms of what is considered masculine (Addis & Mahalik, 2003).

To our knowledge, how emotional communication is influenced by older people's and nurses' characteristics has not previously been explored in reference to home care. Emotional distress needs recognition and support from nurses, as otherwise it may negatively affect older people's wellbeing and everyday lives. Knowledge is needed on important aspects of supportive

emotional communication about emotional distress in home care settings. This study is part of a larger international research project named COMHOME (Hafskjold et al., 2015), which studies person-centered and emotional communication between nurses and older people in home care settings.

2. AIM

The aim was to explore the influence of characteristics of nurses and older people on emotional communication in home care settings. The following research question was addressed. Which characteristics of nurses and older people influence emotional communication in terms of: a) older people's expressions of emotional distress; b) elicitation of expressions of emotional distress; and c) nurses' responses in providing or reducing space for the further exploration of older people's emotional distress?

3. METHODS

3.1. Design

This is an explorative, cross-sectional study of Swedish home care settings. The number of participants and audio recordings used was decided under the COMHOME project to enable analyses and comparisons between Sweden, Norway and the Netherlands (Hafskjold et al., 2015).

3.2. Participants

In Sweden, home care services are performed by registered nurses (RNs) or nurse assistants (NAs). Hence, both registered nurses ($n = 11$) and nurse assistants ($n = 20$) were included in the study. Inclusion criteria for nurses were employment in home care settings and the ability to speak Swedish. Inclusion criteria for the older people included an age of 65 years or older and being Swedish speaking without speech or cognitive impairments. The number of participants was determined from the COMHOME project. In total, 31 nurses and 81 older people participated.

3.3. Setting

A convenience sample of 12 home care institutions located in a county of central Sweden were approached for participation to collect data from audio-recorded home care visits between nurses and older people. Eight of these home care institutions agreed to participate. In this study, home care refers to care provided in the home of an older person and involves different activities such as assistance with daily living tasks, personal care and medical administration and procedures.

3.4. Ethical considerations

Ethical approval was obtained from the Regional Ethical Review Board of Uppsala, Sweden (Dnr 2014/018). Participating nurses and older people received oral and written information on the study, on their participation and rights as participants, and on how the data would be handled, stored and presented/published. All of the participants had to be able to provide written informed consent to participate. The participants were guaranteed confidentiality.

3.5. Data collection

Data from audio-recorded home care visits were collected from August 2014 to November 2015. The study was presented to nurses at different workplace meetings, who were then asked to participate. Those willing to participate were then asked to inform and recruit older people who met the inclusion criteria of the study. No information about the nurses and older people who declined was collected. Nurses deciding not to participate cited reasons such as heavy workloads and feeling stressed, and older people choosing not to participate predominantly stated that they did not like the idea of participating.

Naturally occurring communication during the home care visits was recorded by the nurses, who were instructed to wear recording equipment on their upper arm, to start recording when they entered an older person's home and to stop recording when they left. No directives or information about how the communication was to be analyzed was presented, as this might

have affected the communication and risked biasing the data. The older people could be recorded once or several times depending on the organization of home care visits. Each nurse made 1 – 10 audio recordings (mean = 6.06); most nurses provided seven audio recordings. The goal was to collect approximately 200 audio recordings. Incomplete recordings were excluded (e.g., when the recording device did not work properly). From this data collection approach, we collected 188 audio recordings of home care visits each with a duration between 1 and 86 minutes (mean = 14).

3.6. Data analysis

The analysis of this study was based on communication previously coded during home care visits (Högländer et al., 2017; Sundler et al., 2017) with the Verona Coding Definitions of Emotional Sequences (VR-CoDES: Del Piccolo et al., 2011; Zimmermann et al., 2011) and participants' characteristics (age, sex, language and profession). VR-CoDES is an instrument for coding patients' expressions of emotional distress (Zimmermann et al., 2011) and health providers' responses to these emotional expressions (Del Piccolo et al., 2009). VR-CoDES is descriptive and nonnormative; it does not label responses as good or bad (Del Piccolo, 2017).

For the coding process, elicitations were coded based on whether the emotional distress expressed was elicited by a nurse or older person. Thereafter, the expressed emotional distress was coded as either a concern defined as “a clear and unambiguous expression of an unpleasant current or recent emotion where the emotion is explicitly verbalized” (Zimmermann et al., 2011, p. 144) or as a cue defined as “a verbal or non-verbal hint which suggests an underlying unpleasant emotion but lacks clarity” (Zimmermann et al., 2011, p. 144). Examples of verbal hints include words vague/unspecified in describing emotions, words emphasizing physiological or cognitive correlates of an unpleasant emotional state, exclamations, ambiguous words or a patient's repetition of his/her previous neutral expression. Examples of nonverbal hints include crying, sighing, a trembling voice or silence after a provider's question

(Zimmermann et al., 2011). In conjunction with emotional expressions, immediate responses from nurses were coded and divided into explicit or nonexplicit responses and whether responses provided or reduced space for the further disclosure of given cues or concerns; these were then divided into more categories for the further definition of responses (Del Piccolo et al., 2011). Noldus Observer XT, version 12.0 (Grieco, Loijens, Zimmerman, Krips & Spink, 2011) was used to code the audio recordings. Noldus Observer (NO) allows one to analyze data without the need for transcription. The codes were loaded directly into NO audio files as the expressions occurred in the communication. Interrater reliability for VR-CoDES was established by the first and second authors (J.H. and A.J.S.), who separately coded 15 audio recordings. This score was calculated with Cohen's kappa and resulted in an acceptable level of agreement of $\kappa = 0.64$ ($p < .01$). The remaining audio recordings were coded by J.H.

Expressions of emotional distress consisting of cues and concerns, their elicitations and types of responses (i.e., providing or reducing space) were analyzed along with characteristics of the nurses and older people via generalized linear mixed model (GLMM) analysis. The GLMM analysis was conducted using IBM SPSS Statistics for Windows 24 (IBM Corp., 2016) to examine how characteristics of the participants' influenced emotional communication (VR-CoDES). The GLMM analysis was useful when accounting for nested and cluster-related correlations in the data. The nurses and older people participating in this study were recorded more than once and different nurses could visit the same older people. All analyses of each research question started with an empty model (Model 0) containing the intercept and residuals for the nurses, older people and home care visits. The nurses' and older people's sexes were added as variables (Model 1), after which the second languages, professions and age groups of the nurses and older people were added as variables (Model 2).

4. RESULTS

4.1. Sample description

In total, 316 expressions of older peoples' emotional distress with nurses' subsequent responses were identified from the home care visits. Emotional expressions together with elicitations and responses to emotional distress were found in approximately half of the home care visits and are reported in our previous work (Högländer et al., 2017; Sundler et al., 2017) (Table 1). Expressions of emotional distress occurred in both long and short visits. The shortest visits including expressions of emotional distress were two minutes long ($n = 5$), of which one included five cues and one concern. The nurses were registered nurses (RN) or nursing assistants (NA) (Table 2).

Table 1. Sample descriptions of emotional communication in the home care visits

	Percentage
Type of elicitation observed in the home care visits (0 = nurse elicited, 1 = older people elicited) [†]	
Older people ($n = 116$)	36.7
Nurse ($n = 200$)	63.3
Type of nurse response observed in the home care visits (0 = provide space, 1 = reduce space) [†]	
Responses providing space ($n = 237$)	75.0
Responses reducing space ($n = 79$)	25.0

[†]Coding of binary variables for the GLMM analyses

Table 2. Sample descriptions of participants of the home care visits

	Mean (standard deviation), [sample range], or %
Nurse descriptions (<i>n</i> = 31)	
Profession (0 = NA, 1 = RN) [†]	
RN (<i>n</i> = 11)	35.5
NA (<i>n</i> = 20)	64.5
Sex (0 = female, 1 = male) [†]	
Female (<i>n</i> = 20)	64.5
Male (<i>n</i> = 11)	35.5
Native language (0 = native Swedish, 1 = nonnative Swedish) [†]	
Swedish speaking (<i>n</i> = 22)	71.0
Nonnative Swedish speaking (<i>n</i> = 9)	29.0
Age (0 = ≥45, 1 = ≤44) [†]	43.9 (10.7) [22–62]
Older people descriptions (<i>n</i> = 81)	
Sex (0 = female, 1 = male) [†]	
Female (<i>n</i> = 58)	71.6
Male (<i>n</i> = 23)	28.4
Age (0 = ≥85, 1 = ≤84) [†]	85.9 (7.4) [65–102]

[†]Coding of binary variables for the GLMM analyses

Both female and male nurses and older people participated, and there were visits between the same and different sexes (Table 3).

Table 3. Total number of home care visits (*n* = 188) by sex.

	Male nurse	Female nurse
Older males	24	37
Older females	45	82

There were no reliable interactions between characteristics used in the models (sex, language, profession and age), and we thus omit interactions in the presentation of our results.

4.2. Influence of nurses' and older people's characteristics on expressions of emotional distress

Expressions of emotional distress in the home care visits were influenced by the sex of the nurses and older people (see Models 1 and 2 in Table 4). An older female (0.775) has a slightly stronger effect on expressions of emotional distress than a female nurse (0.579). Older females expressed more emotional distress during home care visits than older males. Expressions of emotional distress were also associated with being a female nurse. Rather, female nurses received more expressions of emotional distress than male nurses.

Model 2 fit the best when explaining some of the variance in the older people ($R^2 = 17.73\%$), but this was mostly due to being female in Model 1 ($R^2 = 16.45\%$). Even so, 82.27% remains unexplained. Model 1 explains more of the variance observed in the nurses ($R^2 = 24.34\%$) than Model 2 ($R^2 = -2.12\%$), which revealed that more nurse variations remain unexplained by the characteristics under study.

Table 4. Summary of the GLMM of expressed emotional distress

Variable	Model 0	Model 1	Model 2
Fixed effects			
Intercept estimate	0.135 (0.153)	-0.685 (0.299)*	-0.892 (0.483)
Older people sex (female)		0.681 (0.280)*	0.775 (0.294)*
Nurse sex (female)		0.554 (0.251)*	0.579 (0.285)*
Nurse language (Swedish)			0.043 (0.323)
Profession (NA)			0.238 (0.326)
Older people (85+)			0.054 (0.265)
Nurse age (45+)			-0.100 (0.279)
Random effects			
Nurse variance	0.189 (0.101)	0.143 (0.086)	0.193 (0.111)
Older people variance	0.784 (0.208)*	0.655 (0.183)*	0.645 (0.189)*
Residual	1.00	1.00	1.00
Proportion of explained variance			
R^2 nurses		24.34	-2.12
R^2 older people		16.45	17.73

* $p < 0.05$.

4.3. Influence of nurses' and older people's characteristics on elicitations of expressions of emotional distress

Older people's expressions of emotional distress were elicited either by themselves or by the nurses. In Model 2, the introduction of language, profession and age variables improved the fit of the model (Table 5). The form of elicitation, i.e., who initiated the cue or concern, showed a significant association with language and profession whereas age did not. Profession had twice as strong an effect (-1.452) on elicitation as language (0.777). Nurses with Swedish as their native language elicited expressions of emotional distress significantly more often in their communication in relation to the older people. Nurses with a second language elicited expressions of emotional distress almost as often as the older people did. Regarding the effects of different professions, RNs elicited expressions of emotional distress more often in their communication with older people than did NAs.

Model 2 was most beneficial in explaining the nurses' level of variance ($R^2 = 75.88\%$) and fully explained the older people's level of variance ($R^2 = 100\%$). However, home care visit variance are not further explained in Model 2 ($R^2 = 34.81\%$), showing that there were variations in home care visits that were not explained by the characteristics used. Therefore, the models were not beneficial in explaining the variance in home care visits.

Table 5. Summary of the GLMM of the type of elicitation

Variable	Model 0	Model 1	Model 2
Fixed effects			
Intercept estimate	0.489 (0.188)*	0.220 (0.434)	1.152 (0.595)
Older people sex (female)		0.251 (0.368)	0.324 (0.378)
Nurse sex (female)		0.107 (0.413)	0.063 (0.377)
Nurse language (Swedish)			0.777 (0.385)*
Profession (NA)			-1.452 (0.382)*
Older people age (85+)			-0.611 (0.357)
Nurse age (45+)			-0.340 (0.374)
Random effects			
Nurse variance	0.369 (0.253)	0.377 (0.260)	0.089 (0.178)
Older people variance	0.055 (0.236)	0.048 (0.229)	0.000
Home care visit variance	0.158 (0.293)	0.183 (0.303)	0.213 (0.241)
Residual	1.00	1.00	1.00
Proportion of explained variance			
R^2 nurses		-2.17	75.88
R^2 older people		12.73	100
R^2 home care visits		-15.82	-34.81

* $p < 0.05$.

4.4. Influence of nurses' and older people's characteristics on responses to emotional distress

In their responses, the nurses could either provide or reduce space for the further disclosure of older people's emotional distress. Both the sex and age of the older people were found to influence the nurses' responses. A response could either provide or reduce space for the further disclosure of older people's emotional distress (see Models 1 and 2 in Table 6). Being an older female had a stronger effect (1.237) on the type of response given than older people's age (-1.117). Being an older female was significantly associated with the type of response given by the nurse. Older females mostly received responses that provided rather than limited space for their emotional distress compared to older males who received almost as many responses providing space as those reducing space. Older people between 65 and 84 years of age

significantly more often received responses that provided rather than reduced space for their concerns in comparison to those who were 85 years of age or older.

Regarding random effects, the degree of nurse variance was small while Model 2 was most beneficial in explaining the older people's level of variance ($R^2 = 100\%$). The characteristics shown in Model 2 explain more of the variance in home care visits ($R^2 = 17.28\%$) than Model 1 does ($R^2 = 0.39\%$), but 82.72% remains unexplained.

Table 6. Summary of the GLMM of the responses

Variable	Model 0	Model 1	Model 2
Fixed effects			
Intercept estimate	1.158 (0.173)*	0.674 (0.420)	1.118 (0.631)
Older people sex (female)		0.813 (0.380)*	1.237 (0.421)*
Nurse sex (female)		-0.202 (0.391)	0.093 (0.422)
Nurse language (Swedish)			0.365 (0.391)
Profession (NA)			-0.299 (0.383)
Older people age (85+)			-1.117 (0.431)*
Nurse age (45+)			-0.501 (0.396)
Random effects			
Nurse variance	0.00	0.00	0.00
Older people variance	0.105 (0.367)	0.017 (0.255)	0.00
Home care visit variance	0.515 (0.489)	0.513 (0.433)	0.426 (0.303)
Residual	1.00	1.00	1.00
Proportion of explained variance			
R^2 nurses		0	0
R^2 older people		83.81	100
R^2 home care visits		0.39	17.28

* $p < 0.05$

5. DISCUSSION

Nurses' and older people's characteristics affected emotional communication differently depending on emotional distress was expressed, based on who elicited the expressed emotion and based on the type of response provided by the nurse. Nurses play an important role in providing emotional support because they can acknowledge and facilitate disclosure and find coping mechanisms for dealing with emotions (Sheldon, Barrett & Ellington, 2006).

In the first GLMM analysis being female was associated with the expression of emotional distress. These results do not correspond with previous studies using VR-CoDES for hospital consultations where sex was not found to be significantly associated with the occurrence of emotional expression (Eide et al., 2011; Mjaaland, Finset, Jensen & Gulbrandsen, 2011). This may be partly attributed to the different care contexts of hospitals and home care settings that may influence emotional communication. The findings of this study are more consistent with other work on home care showing that older females express their concerns and complaints more often than older males (Hellström & Hallberg, 2001). The findings also show that females expressed their emotions more often than males. This may be related to gender stereotypes, with males being reluctant to seek help (Addis & Mahalik, 2003), or to the possibility that older females experience more emotional distress than males.

Females can also be perceived as being more caring and interested in emotional issues. This consideration might help to explain the significantly larger number of expressions of emotional distress from older people received by female nurses than by their male colleagues. In a previous study, female physicians were found to be more engaged in emotional discussion and to facilitate more patient-centered dialog than male physicians (Shin et al., 2015). It is important to be aware of existing differences (such as gender) regarding expressions of emotional concerns and to acknowledge the possible impacts of stereotypes. Failing to acknowledge the impact of stereotypes can increase risks of older males' emotional distress going unnoticed. The differences observed between females and males may also be due to females experiencing more disabilities and concerns than males (Hellström & Hallberg, 2001; Newman & Brach, 2001), highlighting the need to explore expressions of emotional distress further.

From the second GLMM analysis profession and language appeared to influence who elicited the expression of emotional distress. Being a nonnative speaker does not necessarily

lead to challenges with communication (Khatutsky, Wiener & Anderson, 2010). However, native language competence was associated with the elicitation of emotional expression. To establish whether the association with elicitation observed was due to differences in native language competence or perhaps due to cultural differences is difficult. More knowledge is needed on the impact of language and culture on emotional communication. Differences observed in terms of professions might be related to the RNs' greater focus on medical and healthcare aspects of their home care visits and in their interactions with older people (Sundler et al., 2017). Discussions and questions regarding older people's perceived health statuses, illness troubles or medications may elicit expressions of emotional distress in home care visits. These information-seeking questions are important in learning more about how older people perceive their health, but they might also elicit emotional distress.

In the third and final GLMM analysis, the sex and age of the older people presented a significant association with the types of responses provided by the nurses. The age differences observed might be related to age-related differences in how older people express and control their emotions (Gross et al., 1997; Isaacowitz et al., 2017). Nurses might be challenged in their attentiveness to emotional distress when encountering age-related changes. When nurses do not perceive older people's hints of emotional distress, they may offer fewer responses that provide space for such distress. This can be essential in providing space for older people's needs for emotional talk and comfort. Emotional communication is emphasized because older people's abilities to handle their emotions are related to their experience of health (Suri & Gross, 2012). The effects of older people's age and sex on responses providing space for emotional distress might also be related to social norms or stereotypes, which may influence how nurses perceive and respond to emotional expressions. For example, females can be perceived as being more emotional than males (Plant, Hyde & Keltner, 2000; Shields, 2013). Such beliefs and

expectations might create more space for older females' emotional expressions in communication.

Beliefs and stereotypes can influence our expectations of others and of ourselves. For example, males are perceived to exert greater emotional control than females but to be less emotionally understanding (Shields, 2013). These expectations may affect both emotional expressions and the responses that they receive, as interpretations of emotional expressions can be affected by gender stereotypes (Plant et al., 2000). Beliefs and gender-emotional stereotypes, therefore, cannot be neglected when exploring emotional communication in home care settings. These differences need to be acknowledged in emotional communication to develop an awareness of and provide sufficient emotional support for older females and males. Therefore, to help older people talk about their emotions and to provide emotional support is important. Otherwise, unattended emotions and inconsistent comforting might affect older people's experiences of health and wellbeing.

5.1. Limitations

As a possible limitation of this study, the presented characteristics do not fully explain the GLMM models. Additional characteristics that may affect emotional communication not covered in this study such as how long the participants have known one another, working life experiences and older people's social status and care needs have yet to be explored. Further research is needed to help ascertain whether the differences observed are due to differences in lived distress levels, stereotypes or perhaps something entirely different. It should also be noted that VR-CoDES only focuses on negative emotions. Hence, positive emotions were not investigated in this study. The audio recordings used were drawn from a specific Swedish care context and region. Restrictions of this study's generalizability to other contexts or countries could serve as a limitation. However, the data used cover a large and varied sample of audio-recorded communication revealing the presence and expressions of older people's emotional

needs and nurses' responses to these needs. The emotional needs of older people who are receiving care are not only limited to a specific Swedish context, which could indicate the study's generalizability to other contexts and countries.

6. CONCLUSION

The results of this study indicate that emotional communication in home care can be influenced by several factors that may be influenced further by the norms, cultural beliefs and stereotypes held by the society in which they occur. When emotional communication is affected by stereotypes, there are risks of objectification and of a lack of person-centeredness in communication. There are also risks of overlooking the emotional needs of older people and of inequality in emotional support provided.

6.1. Practical implications

The results of this study may raise awareness of the influence of nurses' and older people's characteristics on emotional communication in home care settings. This entails both an awareness of one's own characteristics and of those of others and of how they impact communication. The results can further be used in education settings to enhance both students' and nurses' knowledge of and attentiveness to the characteristics and stereotypes that influence emotional communication with older people: recognizing older people's unique needs and differences and making communication and care more person-centered. These results can further help illuminate and identify the challenges and complexities of emotional communication and its impacts on home care and health outcomes.

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CONTRIBUTIONS

Study design: J.H., A.J.S., P.S., I.K.H., H.E., S.D. & J.H.E.

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